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About the Journal

Bagcilar Medical Bulletin (Bağcılar Tıp Bülteni) (BMB) is periodical scientific publishing of Health Sciences University, İstanbul Bağcılar Training and Research Hospital.This editorially independent, unbiased, international journal periodically publishes peer-reviewed work in the all medical fields on an international scientific basis. Publication language is English for full text and Turkish and English for abstracts. The journal is published in English since December issue of 2016 as an e-journal.

The journal is published quarterly in March, June, September and December.

Original clinical and experimental articles,interesting case studies, and literature reviews made from relevant authors in their brancheswill be accepted for evaluation in BMB.

The editorial policies are based on the "Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals (ICMJE Recommendations)" by the International Committee of Medical Journal Editors (2017, archived at http://www.icmje.org/) rules.

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In the name of T.C. Health Ministary, Health Sciences University, İstanbul Bağcılar Training and Research Hospital, Hospital Administrator Ahmet Yaser Müslümanoğlu, Prof. M.D (T.C. Health Ministary, Health Sciences University, İstanbul Bağcılar Training and Research Hospital, Urology Clinic, Istanbul, Turkey).

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Bağcılar Tıp Bülteni/Bagcilar Medical Bulletin, (BTB) Sağlık Bilimleri Üniversitesi, İstanbul Bağcılar Eğitim ve Araştırma Hastanesinin süreli bilimsel yayınıdır. Uluslararası, hakem değerlendirmeli, İngilizce ve açık erişim olarak yılda 4 sayı(Mart, Haziran, Eylül, Aralık) olarak yayınlanan bilimsel bir dergi olup, tıbbın tüm alanlarındaki bilgi birikiminin uluslararası bilimsel platformda yayılabilmesini amaçlamaktadır. Bu amaçla tıbbın her alanında yapılmış orijinal klinik ve deneysel çalışmalar ve ilginç olgu sunumları ile konusunda uzman yazarların yaptığı literatür derlemeleri yayın için değerlendirmeye alınır.

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Yayın politikaları "Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals (ICMJE Recommendations)" (2016, http://www.icmje.org/) temel alınarak hazırlanmıştır.

Derginin Sahibi

T.C.Sağlık Bakanlığı Sağlık Bilimleri Üniversitesi, İstanbul Bağcılar Eğitim ve Araştırma Hastanesi adına Hastane Yöneticisi Ahmet Yaser Müslümanoğlu, Prof. M.D (Türkiye Cumhuriyeti Sağlık Bakanlığı Sağlık Bilimleri Üniversitesi, İstanbul Bağcılar Eğitim ve Araştırma Hastanesi, Üroloji Kliniği, İstanbul, Türkiye).

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Description

Bagcilar Medical Bulletin is a peer reviewed English journal aiming to publish original research, current review articles, case reports and letters related to all medical fields. The journal is currently published quarterly as online publication. The articles will become freely available to all readers in pdf format as soon as they have been accepted after peer review. Accepted articles will immediately appear as a part of the issue belonging to that publication period. The journal is currently published by Galenos Publishing House. The journal is using online manuscript submission, review and tracking systems.

Editorial Policies and Review Process

Publication Policy

Bagcilar Medical Bulletin considers for publication papers in the following categories:

- Original researches,
- Brief researches,
- Case reports,
- Reviews,
- Letters to the editor

The journal gives high priority to original studies in publication because of aiming to add the findings of searches in Turkey to international scientific knowledge, to share them within the international science milieu and to constitute the introduction of Turkish scientists. The review articles to be published in the journal are authorized by the editor to the relevant authors working on the subject.

General Principles

Papers that have not been published before or under evaluation by other publications are accepted for evaluation by the journal, if approved by each of the author. Publication board may amend manuscripts upon informed consent of authors. Editors and redactors are fully empowered to correct mistakes related to orthography, citation as given in National Library of Medicine MEDLINE/PubMed Resources.

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All submissions must be original, unpublished (including as full text in conference proceedings), and not under the review of any other publication synchronously. Each manuscript is reviewed by one of the editors and at least two referees under double-blind peer review process. We reserve the right to use plagiarism detecting software to screen submitted papers at all times. We check for plagiary and fraudulent data; falsification (fabrication or manipulation of research data, tables, or images) and improper use of humans or animals in research. All manuscripts not in accordance with these standards will be removed from the publication. This also contains any possible malpractice discovered after the publication. In accordance with the code of conduct we will report any cases of suspected plagiarism or duplicate publishing.

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For this reason, regarding the subjects of clinical experiments, it should be indicated in the submitted manuscripts definitely that the above mentioned codes of conduct were applied. Besides approvals, from national or local ethical committees should be sent together with the papers as well. Manuscripts that report the results of experimental investigation with human subjects must include a statement that informed consent was obtained after the procedure(s) had been fully explained. In the case of children and those under wardship or with confirmed insanity, authors are asked to include information about whether the legal custodian's assent was obtained. And a letter of affirmation signed by all authors, confirming the collection of informed consents has to be sent to the journal.

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The language of the Bagcilar Medical Bulletin is American English. In addition, abstracts of the articles are published in both English and Turkish, and abstracts in both languages are requested from the authour(s).

Manuscript Organization And Format

All correspondence will be sent to the first-named author unless otherwise specified. Papers should be accompanied by a cover letter indicating that the paper is intended for publication and specifying for which section of the Journal it is being submitted (i.e., original research article,brief research article, review article, case report or letter to the editor). In addition, a Copyright Transfer Form, Author Contribution Form and ICJME Form for Disclosure of Potential Conflicts of Interest must be submitted. Authors will be notified of the receipt of their paper and the number assigned to it. The number should be included in all further correspondence. All parts of the manuscript, including case reports, quotations, references, and tables, must be double-spaced throughout. All four margins must be at least 2.5 cm. The manuscript should be arranged in the following order, with each item beginning a new page: 1) title page, 2) abstract, 3) text, 4) acknowledgement 5) references, and 6) tables and/or figures. All pages must be numbered consecutively.

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On the title page, include full names of authors, academic or professional affiliations, and complete address with phone, fax number(s) and e-mail address (es) of the corresponding author. Acknowledgments for personal and technical assistance should be indicated on the title page.

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Original Research

Original research articles report substantial and original scientific results within the journal scope. Original research articles comprised of Abstract, Key Words, Introduction, Material and Methods, Results, Discussion, Conclusion, References and Table/Figures. The abstract should be structured as the following.

Abstract

The abstract should be no longer than 500 words and structured as follows: objective, method, results, and conclusions. Objective -the primary purpose of the article; Material and Method(s) -data sources, design of the study, patients or participants, interventions, and main outcome measures; Results -key findings; Conclusions -including direct clinical applications.

Key Words

Up to 3-10 key words in English and in Turkish should be in accordance with National Library of Medicine's Medical Subjects Subheadings (MeSH).

Introduction

This section should contain a clear statement of the general and specific objectives as well as the hypotheses which the work is designed to test. It should also give a brief account of the reported literature. The last sentence should clearly state the primary and secondary purposes of the article. Only, the actual references related with the issues have to be indicated and data or findings related with the current study must not be included in this section.

Material and Methods

This section should contain explicit, concise descriptions of all procedures, materials and methods used in the investigation to enable the reader to judge their accuracy, reproducibility, etc. This section should include the known findings at the beginning of the study and the findings during the study must be reported in results section. Ethics Committee Approval of the research and written Informed Consent obtained from the participants should be indicated.

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The methods, apparatus (the manufacturer's name and address in parentheses), and procedures in sufficient detail must be defined to allow others to reproduce the results. References to established methods, including statistical methods (see below) must be given and brief descriptions for methods that have been published but are not well-known must be provided; new or substantially modified methods must be described, the reasons for using them must be given, and their limitations of the methods must be evaluated. The all drugs and chemicals used, including generic name(s), dose(s), and route(s) of administration must be identified. Authors submitting review manuscripts should include a section describing the methods used for locating, selecting, extracting, and synthesizing data. These methods should also be summarized in the abstract.

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The results should be presented in logical sequence in the text, tables, and illustrations, giving the main or most important findings first. The all the data in the tables or illustrations should not be repeated in the text; only the most important observations must be emphasized or summarized. Extra or supplementary materials and technical detail can be placed in an appendix where they will be accessible but will not interrupt the flow of the text, or they can be published solely in the electronic version of the journal.

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The findings of the study, the findings and results which support or do not support the hypothesis of the study should

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be discussed, results should be compared and contrasted with findings of other studies in the literature and the different findings from other studies should be explained. The new and important aspects of the study and the conclusions that follow from them should be emphasized. The data or other information given in the Introduction or the Results section should not be repeated in detail.

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Conclusions derived from the study should be stated. For experimental studies, it is useful to begin the discussion by summarizing briefly the main findings, then explore possible mechanisms or explanations for these findings, compare and contrast the results with other relevant studies, state the limitations of the study, and explore the implications of the findings for future research and for clinical practice. The conclusions should be linked with the goals of the study but unqualified statements and conclusions not adequately supported by the data should be avoided. New hypotheses should be stated when warranted, but should be labeled clearly as such.

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The "Bagcilar Medical Bulletin'' follows the Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals" (International Committee of Medical Journal Editors - http://www.icmje.org/). Upon submission of the manuscript, authors are to indicate the type of trial/research and provide the checklist of the following guidelines when appropriate:

CONSORT statement for randomized controlled trials (Moher D, Schultz KF, Altman D, for the CONSORT Group. The CONSORT statement revised recommendations for improving the quality of reports of parallel group randomized trials. JAMA 2001; 285: 1987-91) (http://www.consort-statement.org /),

PRISMA for preferred reporting items for systematic reviews and meta-analyses (Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 2009; 6(7): e1000097.) (http://www.prisma-statement.org /),

STARD checklist for the reporting of studies of diagnostic accuracy (Bossuyt PM, Reitsma JB, Bruns DE, Gatsonis CA, Glasziou PP, Irwig LM, et al, for the STARD Group. Towards complete and accurate reporting of studies of diagnostic accuracy: the STARD initiative. Ann Intern Med 2003;138:40-4.) (http://www.stard-statement.org /),

INSTRUCTIONS TO AUTHORS

STROBE statement-checklist of items that should be included in reports of observational studies (http://www.strobe-statement.org /),

MOOSE guidelines for meta-analysis and systemic reviews of observational studies (Stroup DF, Berlin JA, Morton SC, et al. Meta-analysis of observational studies in epidemiology: a proposal for reporting Meta-analysis of observational Studies in Epidemiology (MOOSE) group. JAMA 2000; 283: 2008-12).

CARE guidelines are designed to increase the accuracy, transparency, and usefulness of case reports. (Gagnier JJ, Kienle G, Altman DG, Moher D, Sox H, Riley D; the CARE Group. The CARE Guidelines: Consensus-based Clinical Case Reporting Guideline Development.) (http://www.care-statement.org /

References

Although references to review articles can be an efficient way to guide readers to a body of literature, review articles do not always reflect original work accurately. Readers should therefore be provided with direct references to original research sources whenever possible. On the other hand, extensive lists of references to original work on a topic can use excessive space on the printed page. Small numbers of references to key original papers often serve as well as more exhaustive lists, particularly since references can now be added to the electronic version of published papers, and since electronic literature searching allows readers to retrieve published literature efficiently. Using abstracts as references should be avoided.

References to papers accepted but not yet published should be designated as “in press” or “forthcoming”; authors should obtain written permission to cite such papers as well as verification that they have been accepted for publication. Information from manuscripts submitted but not accepted should be cited in the text as “unpublished observations” with written permission from the source. Citing a “personal communication” should be avoided unless it provides essential information not available from a public source, in which case the name of the person and date of communication should be cited in parentheses in the text. For scientific articles, written permission and confirmation of accuracy from the source of a personal communication must be obtained.

Reference Style and Format

The Uniform Requirements style for references is based largely on an American National Standards Institute style adapted by the National Library of Medicine for its databases. Authors should consult NLM’s Citing Medicine (http://www.nlm.nih.gov/bsd/uniform_requirements.html) for information on its recommended formats for a variety of reference types. References should be numbered consecutively in the order in which they are first mentioned in the text. Identify references in text, tables, and legends by Arabic numerals in parentheses. References cited only in tables or figure legends should be numbered in accordance with the sequence established by the first identification in the text of the particular table or figure. The titles of journals should be abbreviated according to the style used in the list of Journals in National Library of Medicine sources. In addition the list should be obtained in the web address of http://www.nlm.nih.gov. Accuracy of citation is the author’s responsibility. All references should be cited in text. Type references in the style shown below. If there are more than 6 authors, list them followed by et al. Abbreviations of journal names should conform to the style used in National Library of Medicine. If a journal is not indexed in National Library of Medicine’s MEDLINE/PubMed, it should not be abbreviated.

Examples for References:

1. For articles in journals:

For the published article from the journal which placed and abbreviated in MEDLINE:

Crow SJ, Peterson CB, Swanson SA, Raymond NC, Specker S, Eckert ED, et al. Increased mortality in bulimia nervosa and other eating disorders. Am J Psychiatry 2009;166(12):1342-1346.

For the published article from the journal which is not placed and is not abbreviated in MEDLINE:

Sevinçer GM, Konuk N. Emotional eating. Journal of Mood Disorders 2013;3(4):171-178.

2. For the supplement:

For the published article from the journal which placed and abbreviated in MEDLINE:

Sharan P, Sundar AS. Eating disorders in women. Indian J Psychiatry 2015:57(Suppl 2):286-295.

For the published article from the journal which is not placed and is not abbreviated in MEDLINE:

Maner F. Yeme bozukluklarının tedavisi. Anadolu Psikiyatri Dergisi 2009;10(Ek 1):55-56.

3. For articles in press:

Cossrow N, Pawaskar M, Witt EA, Ming EE, Victor TW, Herman BK, et al. Estimating the prevalence of binge eating disorder in a community sample from the United States: comparing DSM-IV-TR and DSM-5 criteria. J Clin Psychiatry, 2016. (in press).

4. For the citations from books:

Books edited by one editor:

McKnight TL. Obesity Management in Family Practice. 1st ed., NewYork: Springer, 2005:47-51.

INSTRUCTIONS TO AUTHORS

For the citation from a section of book edited by editor(s):

Jebb S, Wells J. Measuring body composition in adults and children. In Clinical Obesity in Adults and Children, Copelman P, Caterson I, Dietz W (editors). 1st ed., London: Blackwell Publishing, 2005:12-18.

If the authors of the cited section are the editors of the book:

Eckel RH (editor). Treatment of obesity with drugs in the new millennium. In Obesity Mechanisms and Clinical Management. First ed., Philadelphia: Lippincott Williams & Wilkins, 2003:449-476.

For the citation from a translated book:

McGuffin P, Owen MJ, Gottsman II. Psikiyatri Genetiği ve Genomiği. Abay E, Görgülü Y (Çevirenler) 1st ed., Istanbul: Nobel Tıp Kitabevleri, 2009:303-341.

5. For the citation from thesis:

Keçeli F. Yeme bozukluğu hastalarında obsesif kompulsif bozukluk ve kişilik bozukluğu. Thesis, T.C. Sağlık Bakanlığı Bakırköy Prof. Dr. Mazhar Osman Ruh Sağlığı ve Sinir Hastalıkları Eğitim ve Araştırma Hastanesi, Istanbul:2006.

6. For the citation from posters:

Akbaş Öncel D, Akdemir A. Üniversite öğrencilerinde diyet, beden algısı ve kendilik algısı arasındaki ilişkiler. 47. Ulusal Psikiyatri Kongresi Özet Kitabı, 26-30 Ekim 2011, Antalya, 2011:102.

7. Online Article:

Kaul S, Diamond GA. Good enough: a primer on the analysis and interpretation of noninferiority trials. Ann Intern Med [Internet]. 2006 Jul 4 [cited 2007 Jan 4];145(1):62-9. Available from:http://www.annals.org/cgi/reprint/145/1/62.pdf

SUBMISSION TO JOURNAL

All new manuscripts must be submitted through the Bagcilar Medical Bulletin online manuscript submission and peer review system. Complete instructions are available at the website (). A cover letter should accompany with manuscripts, including the knowledge of:

•The findings of previous same studies should be informed and should be cited. The copies of previous same studies should be sent with manuscripts that might help to the editor in the decision process.

•The knowledge of "all authors have read and accepted the study in its form, all authors meet the criteria for being in authorship" should be stated.

•All helpful things for editorial ship should be stated: The comments of previous editor/reviewers and the response of authors should be added if the manuscript has been sent to another journal for consideration, previously. The editor requested this information to accelerate the publication process.

SUBMISSION CHECKLIST

It is hoped that this list will be useful during the final checking of an article prior to sending it to the journal's editor for review. Please consult this Guide for Authors, for further details of any item.

Ensure that the following items are present:

- Cover letter to the editor
- The category of the manuscript
- Acknowledgement of "the paper is not under consideration for publication in another journal"
- Disclosure of any commercial or financial involvement
- Reviewing the statistical design of the research article
- Last control for fluent English
- Copyright Transfer Form
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- ICJME Form for Disclosure of Potential Conflicts of Interest
- Permission of previous published material if used in the present manuscript
- Acknowledgement of the study "in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of in 2000.
- Statement that informed consent was obtained after the procedure(s) had been fully explained.
- Indicating whether the institutional and national guide for the care and use of laboratory animals was followed as in "Guide for the Care and Use of Laboratory Animals".
- Title page
- The title of the manuscript both in Turkish and in English
- All authors and their affiliations
- All authors' e-mail address, full postal address, GSM phone, business telephone and fax numbers
- Abstracts (400-500 words) Both in Turkish and in English
- Key words: 3 to 10 words (in Turkish and in English)
- Body text
- Acknowledgement
- Reference
- All tables (including title, description, footnotes)

YAZARLARA BİLGİ

Derginin Tanımı

Bağcılar Tıp Bülteni (Bagcilar Medical Bulletin), tıbbın her alanında araştırma makalelerini, güncel derleme yazılarını, olgu sunumlarını ve editöre mektupları İngilizce tam metin ve Türkçe özle yayınlayan hakemli bir dergidir. Dergi online olarak yılda 4 sayı yayınlanmaktadır. Tüm makaleler kabul edilir edilmez, online olarak pdf formatında bu web sitesinde, o dönemdeki sayının bir makalesi olarak yer alacaktır. Dergi Galenos Yayınevi tarafından yayımlanmaktadır.

Editoryal Politikalar ve Hakem Süreci

Yayın Politikası

Bağcılar Tıp Bülteni, yayınlanmak üzere gönderilen yazıları aşağıda belirtilen şekillerde kabul eder:

- Orijinal araştırmalar,
- Kısa araştırmalar,
- Olgu sunumları,
- Derlemeler,
- Editöre mektup

Dergi, Türkiye'de yapılan araştırmaların uluslararası bilim arenasına duyurulması, uluslararası bilim çevrelerince paylaşılması ve bu bağlamda Türkiye'nin tanıtılmasına katkıda bulunmayı misyon edindiğinden özellikle orijinal araştırma niteliğindeki yazıları yayınlamaya öncelik vermektedir. Dergide yayınlanacak derleme türündeki yazılar editör tarafından konu ile ilgili çalışan yetkin kişilere hazırlatılmaktadır.

Genel İlkeler

Daha önce yayınlanmamış ya da yayınlanmak üzere başka bir dergide halen değerlendirmede olmayan ve her bir yazar tarafından onaylanan makaleler dergide değerlendirilmek üzere kabul edilir. Yayın kurulu, yazarların iznini alarak yazıda değişiklikler yapabilir. Editör ve dil editörleri dil, imlâ ve kaynakların National Library of Medicine MEDLINE/PubMed Resources'da belirtildiği gibi yazılmasında ve ilgili konularda tam yetkilidir.

Eğer makalede daha önce yayınlanmış alıntı yazı, tablo, resim vs. mevcut ise makale yazarı, yayın hakkı sahibi ve yazarlarından yazılı izin almak ve bunu makalede belirtmek zorundadır. Gerekli izinlerin alınıp alınmadığından yazar(lar) sorumludur.

Bilimsel toplantılarda sunulan özet bildiriler, makalede belirtilmesi koşulu ile kaynak olarak kabul edilir. Editör, dergiye gönderilen makale biçimsel esaslara uygun ise, gelen yazıyı yurtiçinden ve/veya yurtdışından en az iki hakemin değerlendirmesinden geçirtir, hakemler gerek gördüğü takdirde yazıda istenen değişiklikler yazarlar tarafından yapıldıktan sonra yayınlanmasına onay verir. Makale yayınlanmak üzere dergiye gönderildikten sonra yazarlardan hiçbirinin ismi, tüm yazarların yazılı izni olmadan yazar listesinden silinemez ve yeni bir isim yazar olarak eklenemez ve yazar sırası değiştirilemez. Yayına kabul edilmeyen makale, resim ve fotoğraflar yazarlara geri gönderilmez.

Yazarların Sorumluluğu

Makalelerin bilimsel ve etik kurallara uygunluğu yazarların sorumluluğundadır. Yazar makalenin orijinal olduğu, daha önce başka bir yerde yayınlanmadığı ve başka bir yerde, başka bir dilde yayınlanmak üzere değerlendirmede olmadığı konusunda teminat sağlamalıdır. Uygulamadaki telif kanunları ve anlaşmaları gözetilmelidir. Telife bağlı materyaller (örneğin tablolar, şekiller veya büyük alıntılar) gerekli izin ve teşekkürle kullanılmalıdır. Başka yazarların, katkıda bulunanların çalışmaları ya da yararlanılan kaynaklar uygun biçimde kullanılmalı ve referanslarda belirtilmelidir.

Gönderilen makalede tüm yazarların akademik ve bilimsel olarak doğrudan katkısı olmalıdır, bu bağlamda "yazar" yayınlanan bir araştırmanın kavramsallaştırılmasına ve desenine, verilerin elde edilmesine, analizine ya da yorumlanmasına belirgin katkı yapan; yazının yazılması ya da bunun içerik açısından eleştirel biçimde gözden geçirilmesinde görev yapan; yazının yayınlanmak üzere nihai halini onaylayan ve çalışmanın herhangi bir bölümünün doğruluğuna ya da bütünlüğüne ilişkin soruların uygun şekilde soruşturulduğunun ve çözümlendiğinin garantisini vermek amacıyla çalışmanın her yönünden sorumlu olmayı kabul eden kişi olarak görülür. Fon sağlanması, ya da araştırma grubunun genel süpervizyonu tek başına yazarlık hakkı kazandırmaz. Yazar olarak gösterilen tüm bireyler sayılan tüm ölçütleri karşılamalıdır ve yukarıdaki ölçütleri karşılayan her birey yazar olarak gösterilebilir. Çok merkezli çalışmalarda grubun tüm üyelerinin yukarıda belirtilen şartları karşılaması gereklidir. Yazarların isim sıralaması ortak verilen bir karar olmalıdır. Tüm yazarlar yazar sıralamasını Telif Hakkı Devir Formunda imzalı olarak belirtmek zorundadırlar. Yazarların tümünün ismi yazının başlığının altındaki bölümde yer almalıdır.

Yazarlık için yeterli ölçütleri karşılamayan ancak çalışmaya katkısı olan tüm bireyler teşekkür (acknowledgement) kısmında sıralanmalıdır. Bunlara örnek olarak ise sadece teknik destek sağlayan, yazıma yardımcı olan ya da sadece genel bir destek sağlayan kişiler verilebilir. Finansal ve materyal destekleri de belirtilmelidir.

Yazıya materyal olarak destek veren ancak yazarlık için gerekli ölçütleri karşılamayan kişiler "klinik araştırıcılar" ya da "yardımcı araştırıcılar" gibi başlıklar altında toplanmalı ve bunların işlevleri ya da katılımları "bilimsel danışmanlık yaptı", "çalışma önerisini gözden geçirdi", "veri topladı" ya da "çalışma hastalarının bakımını üstlendi" şeklinde belirtilmelidir.

YAZARLARA BİLGİ

Teşekkür (acknowledgement) kısmında belirtilen bu ifadeler için bu bireylerden de yazılı izin alınması gerekmektedir.

Bütün yazarlar, araştırmanın sonuçlarını ya da bilimsel değerlendirmeyi etkileyebilme potansiyeli olan finansal ilişkiler, çıkar çatışması ve çıkar rekabetini beyan etmelidirler. Bir yazar kendi yayınlanmış yazısında belirgin bir hata ya da yanlışlık tespit ederse, bu yanlışlıklara ilişkin düzeltme ya da geri çekme için yayın yönetmeni ile hemen temasa geçme ve işbirliği yapma sorumluluğunu taşır. Yazarların katkısını belirten Yazar Katkı Formu ve çıkar çatışması olup olmadığını belirten ICMJE Potansiyel Çıkar Çatışması Beyan Formu makale ile birlikte gönderilmelidir. Yazarların görevleri ve sorumlulukları konusunda aşağıdaki kaynağa bakabilirsiniz; http://www.icmje.org/recommendations/browse/roles-and-responsibilities/

Editör ve Hakem Sorumlulukları ve Değerlendirme Süreci

Editörler, makaleleri, yazarların etnik kökeninden, cinsiyetinden, cinsel yöneliminden, uyruğundan, dini inancından ve siyasi felsefesinden bağımsız olarak değerlendirirler. Yayına gönderilen makalelerin adil bir şekilde çift taraflı kör hakem değerlendirmesinden geçmelerini sağlarlar. Gönderilen makalelere ilişkin tüm bilginin, makale yayınlanana kadar gizli kalacağını garanti ederler. Editörler içerik ve yayının toplam kalitesinden sorumludurlar. Gereğinde hata sayfası yayınlamalı ya da düzeltme yapmalıdırlar.

Genel Yayın Yönetmeni; yazarlar, editörler ve hakemler arasında çıkar çatışmasına izin vermez. Hakem atama konusunda tam yetkiye sahiptir ve Bağcılar Tıp Bülteni'nde yayınlanacak makalelerle ilgili nihai kararı vermekle yükümlüdür. Yayın etiği konusunda COPE kaynağına bakabilirsiniz. https://publicationethics.org/files/u7141/1999pdf13.pdf

Hakemler makaleleri, yazarların etnik kökeninden, cinsiyetinden, cinsel yöneliminden, uyruğundan, dini inancından ve siyasi felsefesinden bağımsız olarak değerlendirirler. Araştırmayla ilgili, yazarlarla ve/veya araştırmanın finansal destekçileriyle çıkar çatışmaları olmamalıdır. Değerlendirmelerinin sonucunda tarafsız bir yargıya varmalıdırlar. Hakemler yazarların atıfta bulunmadığı konuyla ilgili yayınlanmış çalışmaları tespit etmelidirler. Gönderilmiş yazılara ilişkin tüm bilginin gizli tutulmasını sağlamalı ve yazar tarafında herhangi bir telif hakkı ihlali ve intihal fark ederlerse Genel Yayın Yönetmeni'ne raporlamalıdırlar. Hakem, makale konusu hakkında kendini vasıflı hissetmiyor ya da zamanında geri dönüş sağlaması mümkün görünmüyorsa, Genel Yayın Yönetmeni'ne bu durumu bildirmeli ve hakem sürecine kendisini dahil etmemesini istemelidir.

Editör makalelerle ilgili bilgileri (makalenin alınması, içeriği, gözden geçirme sürecinin durumu, hakemlerin eleştirileri ya da varılan sonuç) yazarlar ya da hakemler dışında kimseyle paylaşmaz.

Değerlendirme sürecinde editör hakemlere gözden geçirme için gönderilen makalelerin, yazarların özel mülkü olduğunu ve bunun imtiyazlı bir iletişim olduğunu açıkça belirtir. Hakemler ve yayın kurulu üyeleri topluma açık bir şekilde makaleleri tartışamazlar. Hakemlerin kendileri için makalelerin kopyalarını çıkarmalarına izin verilmez ve editörün izni olmadan makaleleri başkasına veremezler. Hakemler gözden geçirmelerini bitirdikten sonra makalenin kopyalarını yok etmeli ya da editöre göndermelidirler. Dergimiz editörü de reddedilen ya da geri verilen makalelerin kopyalarını imha etmelidir.

Yazarın ve editörün izni olmadan hakemlerin gözden geçirmeleri basılamaz ve açıklanamaz. Hakemlerin kimliğinin gizli kalmasına özen gösterilmelidir. Bazı durumlarda editörün kararıyla, ilgili hakemlerin makaleye ait yorumları aynı makaleyi yorumlayan diğer hakemlere gönderilerek hakemlerin bu süreçte aydınlatılması sağlanabilir. Değerlendirme süreciyle ilgili olarak COPE kaynağına bakabilirsiniz: http://publicationethics.org/files/Peer review guidelines.pdf

Açık Erişim İlkesi

Açık erişimli bir yayın olan Bağcılar Tıp Bülteni dergisinin tüm içeriği okura ya da okurun dahil olduğu kuruma ücretsiz olarak sunulur. Okurlar, yayıncı ya da yazardan izin almadan dergi makalelerinin tam metnini okuyabilir, indirebilir, kopyalayabilir, dağıtabilir, basabilir, arayabilir ve link sağlayabilir.

Yayın Etiği

İlke ve Standartlar

Bağcılar Tıp Bülteni yayın etiğinde en yüksek standartlara bağlıdır ve Committee on Publication Ethics (COPE), Council of Science Editors (CSE), World Association of Medical Editors (WAME) ve International Committee of Medical Journals (ICJME) tarafından geliştirilen yayın etiği ilkelerini ve tavsiyelerini gözetir.

Gönderilen tüm makaleler orijinal, yayınlanmamış (konferans bildirilerindeki tam metinler de dahil) ve başka bir dergide değerlendirme sürecinde olmamalıdır. Her bir makale editörlerden biri ve en az iki hakem tarafından çift kör değerlendirmeden geçirilir. Gönderilen makaleleri intihal yazılımı ile denetleme hakkımız haklıdır. İntihal, veride hile ve tahrif (araştırma verisi, tabloları ya da imajlarının manipülasyonu ve asılsız üretimi), insan ve hayvanların araştırmada uygun olmayan kullanımı konuları denetimden

YAZARLARA BİLGİ

geçmektedir. Bu standartlara uygun olmayan tüm makaleler yayından çıkarılır. Buna yayından sonra tespit edilen olası kuraldışı, uygunsuzluklar içeren makaleler de dahildir. Yayın etiği kurallarına bağlı olarak, intihal şüphesini ve duplikasyon durumlarını rapor edeceğimizi belirtiriz. Olası bilimsel hatalı davranışları ve yayın etiği ihlali vakalarını ele alırken COPE Ethics Flowcharts http://publicationethics.org/resources/flowcharts izlenir.

İnsan ve Hayvan Hakları, Bilgilendirilmiş Olur, Çıkar Çatışması

Bağcılar Tıp Bülteni, yayınladığı makalelerin ticarî kaygılardan uzak ve konu ile ilgili en iyi etik ve bilimsel standartlarda olması şartını gözetmektedir. Makalelerin etik kurallara uygunluğu yazarların sorumluluğundadır.

Bağcılar Tıp Bülteni, 1975 Helsinki Deklarasyonu'nun 2004 yılında revize edilen Ethical Principles for Medical Research Involving Human Subjects'e http://www.wma.net/en/30publications/10policies/b3/index.html ve 2006 yılında revize edilen WMA Statement on Animal Use in Biomedical Research'e http://www.wma.net/en/30publications/10policies/a18/uymayı prensip edinmiştir. Bu yüzden dergide yayınlanmak üzere gönderilen yazılarda, klinik deneylere katılan denekler ile ilgili olarak yukarıda belirtilen etik standartlara uyulduğunun mutlaka belirtilmesi gerekmektedir. Ayrıca deneyin türüne göre gerekli olan yerel veya ulusal etik komitelerden alınan onay yazıları yazı ile birlikte gönderilmelidir. Bununla birlikte deneye katılan kişi/hastalardan, hastalar eğer temyiz kudretine sahip değilse vâsilerinden yazılı bilgilendirilmiş onam alındığını belirten bir yazı ile beraber tüm yazarlar tarafından imzalanmış bir belgenin editöre gönderilmesi gerekmektedir.

Hastalardan izin alınmadan mahremiyet bozulamaz. Hastaların ismi, isimlerinin baş harfleri ya da hastane numaraları gibi tanımlayıcı bilgiler, fotoğraflar ve soy ağacı bilgileri vb. bilimsel amaçlar açısından çok gerekli olmadıkça ve hasta (ya da anne-baba, ya da vâsisi) yazılı bilgilendirilmiş onam vermedikçe basılmazlar. Özellikle olgu bildirimlerinde, çok gerekli olmadıkça hasta ile ilgili tanımlayıcı ayrıntılar çıkarılmalıdır. Örneğin, fotoğraflarda göz bölgesinin maskelenmesi kimliğin gizlenmesi için yeterli değildir. Eğer veriler kimliğin gizlenmesi için değiştirildiyse yazarlar bu değişikliklerin bilimsel anlamı etkilemediği konusunda güvence vermelidirler. Olgu sunumlarında yer verilen hastalardan bilgilendirilmiş onam alınmalıdır. Bilgilendirilmiş onam alındığı da makalede belirtilmelidir.

Bu tip çalışmaların varlığında yazarlar, makalenin YÖNTEM(LER) bölümünde bu prensiplere uygun olarak çalışmayı yaptıklarını, kurumlarının etik kurullarından ve çalışmaya katılmış insanlardan "bilgilendirilmiş onam" aldıklarını belirtmek zorundadırlar.

Çalışmada "hayvan" kullanılmış ise yazarlar, makalenin YÖNTEM(LER) bölümünde "Guide for the Care and Use of Laboratory Animals" (www.nap.edu/catalog/5140.html) doğrultusunda çalışmalarında hayvan haklarını koruduklarını ve kurumlarının etik kurullarından onay aldıklarını belirtmek zorundadırlar. Hayvan deneyleri rapor edilirken yazarlar, laboratuvar hayvanlarının bakımı ve kullanımı ile ilgili kurumsal ve ulusal rehberlere uyup uymadıklarını yazılı olarak bildirmek zorundadırlar.

Editör ve yayıncı, reklâm amacı ile dergide yayınlanan ticari ürünlerin özellikleri ve açıklamaları konusunda hiçbir garanti vermemekte ve sorumluluk kabul etmemektedir. Eğer makalede doğrudan veya dolaylı ticarî bağlantı veya çalışma için maddî destek veren kurum mevcut ise yazarlar; kaynak sayfasında, kullanılan ticarî ürün, ilaç, ilaç firması v.b. ile ticari hiçbir ilişkisinin olmadığını veya varsa nasıl bir ilişkisinin olduğunu (konsültan, diğer anlaşmalar) bildirmek zorundadır. Bağcılar Tıp Bülteni, WAME'nin çıkar çatışması tanımını benimser http://www.wame.org/about/wame-editorial-on-coi

Buna göre, yazar, hakem ya da editör sorumluluklarını aşırı düzeyde ve/veya haksızlığa yol açabilecek düzeyde etkileyebilecek ya da etkileyebileceği olası bir çıkar rekabeti içindeyse, çıkar çatışması söz konusudur ve bunun açıklanması gerekir. Açıklanması öngörülen çıkar çatışması tipleri, finansal bağlar, akademik taahhütler, kişisel ilişkiler, politik ya da dini inançlar, kurumsal bağlantılardır. Çıkar çatışması söz konusuysa bu makalede açıklanmalıdır.

Dil

Bağcılar Tıp Bülteni'nin yayın dili Amerikan İngilizcesi'dir, ayrıca makalelerin özleri hem İngilizce, hem Türkçe yayınlanır. Her iki dildeki özler yazarlardan istenir.

Yazıların Hazırlanması

Aksi belirtilmedikçe gönderilen yazılarla ilgili tüm yazışmalar ilk yazarla yapılacaktır. Gönderilen yazılar, yazının yayınlanmak üzere gönderildiğini ve Bağcılar Tıp Bülteni'nin hangi bölümü (Orijinal Araştırma, Kısa Araştırma, Olgu Sunumu, Derleme, Editöre Mektup) için başvurulduğunu belirten bir mektup, yazının elektronik formunu içeren Microsoft Word 2003 ve üzerindeki versiyonları ile yazılmış elektronik dosya ile tüm yazarların imzaladığı 'Telif Hakkı Devir Formu', Yazar Katkı Formu ve ICMJE Potansiyel Çıkar Çatışması Beyan Formueklenerek gönderilmelidir. Yazıların alınmasının ardından yazarlara makalenin alındığı, bir makale numarası ile bildirilecektir. Tüm yazışmalarda bu makale numarası kullanılacaktır. Makaleler sayfanın her bir kenarından 2,5

YAZARLARA BİLGİ

cm kenar boşluğu bırakılarak ve çift satır aralıklı yazılmalıdır. Makalelerde aşağıdaki sıra takip edilmelidir ve her bölüm yeni bir sayfa ile başlamalıdır: 1) başlık sayfası, 2) öz, 3) metin, 4) teşekkür / 5) kaynaklar ve 6) tablo ve/veya şekiller. Tüm sayfalar sırayla numaralandırılmalıdır.

Başlık

Başlık sayfasında, yazarların adları, akademik ünvanları ve yazışılacak yazarın tam adres, telefon ve faks numaraları ile e-mail adresi mutlaka bulunmalıdır. Yazıların Türkçe özlerinde mutlaka Türkçe başlık da yer almalıdır.

Öz ve Anahtar Sözcükler

Makalenin İngilizce başlığı İngilizce özde, Türkçe başlığı da Türkçe özde yer almalıdır. Bütün makaleler öz ve anahtar kelime içermelidir. Özler bir makalenin birçok elektronik veri tabanında yer alan en belirgin kısmı olduğundan, yazarlar özün makalenin içeriğini doğru olarak yansıttığından emin olmalıdır. Öz çalışmanın temeliyle ilgili bilgi vermeli ve çalışmanın amacını, temel prosedürleri (olguların ya da laboratuvar hayvanlarının seçimi, gözlemsel ve analitik yöntemler), ana bulguları (mümkünse özgül etki büyüklüklerini ve istatistiksel anlamlılıklarını vererek) ve temel çıkarımları içermelidir. Çalışmanın ya da gözlemlerin yeni ve önemli yönleri belirtilmelidir. Anahtar sözcükler, her türlü yazıda Türkçe ve İngilizce özlerin altındaki sayfada 3-10 adet verilmelidir. Anahtar sözcük olarak National Library of Medicine'ın Tıbbi Konu Başlıkları'nda (Medical Subject Headings, MeSH) yer alan terimler kullanılmalıdır. MeSH'de yer alan terimlerin Türkçe karşılıklarına Türkiye Bilim Terimleri'nden http://www.bilimterimleri.com erişilebilir.

Makale Türleri

Orijinal Araştırma

Orijinal araştırma makaleleri derginin kapsamına uygun konularda önemli, özgün bilimsel sonuçlar sunan araştırmaları raporlayan yazılardır. Orijinal araştırma makaleleri, Öz, Anahtar Kelimeler, Giriş, Yöntem ve Gereçler, Bulgular, Tartışma, Sonuçlar, Kaynaklar bölümlerinden ve Tablo, Grafik ve Şekillerden oluşur. Öz bölümü araştırma yazılarında aşağıda belirtilen formatta yapılandırılmış olmalıdır.

Öz

Araştırma yazılarında Türkçe ve İngilizce özler en fazla 500 kelime olmalı ve şu şekilde yapılandırılmalıdır: Amaç/Objective: Yazının birincil ve asıl amacı; Yöntem ve Gereçler/Material and Method(s): Veri kaynakları, çalışmanın iskeleti, hastalar ya da çalışmaya katılanlar, görüşme/değerlendirmeler ve temel ölçümler; Bulgular/Results: Ana bulgular; Sonuç(lar)/Conclusion(s):Doğrudan klinik uygulamalar, çıkartılacak sonuçlar belirtilmelidir.

Anahtar Kelimeler

National Library of Medicine'ın Tıbbi Konu Başlıkları'nda (MedicalSubjectHeadings, MeSH) yer alan terimler kullanılmalıdır, en az üç anahtar kelime belirtilmelidir.

Giriş

Giriş/Introduction bölümünde konunun önemi, tarihçe ve bugüne kadar yapılmış çalışmalar, hipotez ve çalışmanın amacından söz edilmelidir. Hem ana hem de ikincil amaçlar açıkça belirtilmelidir. Sadece gerçekten ilişkili kaynaklar gösterilmeli ve çalışmaya ait veri ya da sonuçlardan söz edilmemelidir.

Yöntem ve Gereçler

Yöntem ve Gereçler/Material and Methods bölümünde, veri kaynakları, hastalar ya da çalışmaya katılanlar, ölçekler, görüşme/değerlendirmeler ve temel ölçümler, yapılan işlemler ve istatistiksel yöntemler yer almalıdır. Yöntem bölümü, sadece çalışmanın planı ya da protokolü yazılırken bilinen bilgileri içermelidir; çalışma sırasında elde edilen tüm bilgiler bulgular kısmında verilmelidir. Yöntem ve Gereçler bölümünde olguların seçimi ve tanımlanması hakkında bilgi, teknik bilgi ve istatistik hakkında bilgi yer almalıdır. Araştırmanın Etik Kurul Onayı ve katılımcılardan alınan yazılı Bilgilendirilmiş Onam belirtilmelidir.

Olguların Seçimi ve Tanımlanması

Gözlemsel ya da deneysel çalışmaya katılanların (hastalar, hayvanlar, kontroller) seçimi, kaynak popülasyon, çalışmaya alınma ve çalışmadan dışlanma ölçütleri açıkça tanımlanmalıdır. Yaş ve cinsiyet gibi değişkenlerin çalışmanın amacıyla olan ilişkisi her zaman açık olmadığından yazarlar çalışma raporundaki kullanımlarını açıklamalıdır; örneğin yazarlar niçin sadece belli bir yaş grubunun alındığını ya da neden kadınların çalışma dışında bırakıldığını açıklamalıdır. Çalışmanın niçin ve nasıl belli bir şekilde yapıldığı açık bir şekilde belirtilmelidir. Yazarlar etnisite ya da ırk gibi değişkenler kullandıklarında bu değişkenleri nasıl ölçtüklerini ve geçerliklerini açıklamalıdır.

Teknik Bilgi

Diğer çalışmacıların sonuçları yineleyebilmesi için yöntem ve kullanılan araçlar (üretici firma ve adres paragraf içinde belirtilerek) ayrıntılı bir şekilde belirtilmelidir. Önceden kullanılan bilinen yöntemler için (istatistiksel yöntemler dahildir) kaynak gösterilmeli, basılmış ama iyi bilinmeyen bir yöntem için kaynak verilmeli ve yöntem açıklanmalıdır. Aynı şekilde yeni ya da belirgin olarak modifiye edilmiş yöntemler tanımlanmalı ve kullanılma nedenleri belirtilip kısıtlılıkları değerlendirilmelidir. Kullanılan tüm ilaç ve kimyasallar doğru olarak tanımlanıp jenerik isimleri, dozları ve kullanım biçimleri

YAZARLARA BİLGİ

belirtilmelidir. Gözden geçirme yazısı gönderen yazarlar veriyi bulma, seçme, ayırma ve sentezleme yöntemlerini belirtmelidir. Bu yöntemler aynı zamanda özde de yer almalıdır.

İstatistik

İstatistiksel yöntem, orijinal veriye erişebilecek bilgili bir okuyucunun rapor edilen sonuçları onaylayabileceği bir ayrıntıda belirtilmelidir. Mümkünse, bulgular niceliksel hale getirilmeli ve hata ölçümleri (güvenlik aralıkları gibi) sunulmalıdır. Etki büyüklüğünü vermeyen, p değerlerinin kullanımı gibi, salt istatistiksel hipotez sınamasına dayanılmamalıdır. Çalışma deseni ve istatistiksel yönteme dair kaynaklar sayfalar belirtilerek mümkün olduğu sürece standart kaynaklar olmalıdır. İstatistiksel terimler, kısaltmalar ve semboller tanımlanmalıdır. Kullanılan bilgisayar programı belirtilmelidir.

Bulgular

Ana bulgular istatistiksel verilerle desteklenmiş olarak eksiksiz verilmeli ve bu bulgular uygun tablo, grafik ve şekillerle görsel olarak da belirtilmelidir. Bulgular yazıda, tablolarda ve şekillerde mantıklı bir sırayla önce en önemli sonuçlar olacak şekilde verilmelidir. Tablo ve şekillerdeki tüm veriyi yazıda vermemeli, sadece önemli noktaları vurgulanmalıdır. Ekstra materyal ve teknik bilgi ek kısmında verilerek yazının akışının bozulmaması sağlanmalı, alternatif olarak bunlar sadece elektronik versiyonda yer almalıdır.

Tartışma

Tartışma/Discussion bölümünde o çalışmadan elde edilen veriler, kurulan hipotez doğrultusunda hipotezi destekleyen ve desteklemeyen bulgular ve sonuçlar irdelenmeli ve bu bulgu ve sonuçlar literatürde bulunan benzeri çalışmalarla kıyaslanmalı, farklılıklar varsa açıklanmalıdır. Çalışmanın yeni ve önemli yanları ve bunlardan çıkan sonuçları vurgulanmalıdır. Giriş ya da sonuçlar kısmında verilen bilgi ve veriler tekrarlanmamalıdır.

Sonuçlar

Sonuçlar/Conclusions bölümünde çalışmadan çıkarılan sonuçlar sıralanmalıdır. Deneysel çalışmalar için tartışmaya sonuçları kısaca özetleyerek başlamak, daha sonra olası mekanizmaları ya da açıklamaları incelemek ve bulguları önceki çalışmalarla karşılaştırmak, çalışmanın kısıtlılıklarını özetlemek, gelecekteki çalışmalar ve klinik pratik için uygulamalarını belirtmek faydalıdır. Varılan sonuçlar çalışmanın amacıyla karşılaştırılmalı, ancak elde edilen bulgular tarafından yeterince desteklenmeyen çıkarımlardan kaçınılmalıdır. Yazarlar, eğer elde ettikleri veriler ekonomik veri ve analizler içermiyorsa, ekonomik çıkar ya da faydalarla ilgili yorumlardan özellikle kaçınılmalıdır. Gerektiğinde yeni hipotezler ortaya konmalı, ancak bunların yeni hipotezler olduğu belirtilmelidir.

Tablo, Grafik ve Şekiller

Yazı içindeki grafik, şekil ve tablolar Arap sayıları ile numaralandırılmalıdır. Şekillerin metin içindeki yerleri belirtilmelidir. Ayrıntılı bilgi aşağıda ilgili başlık altında yer almaktadır.

Kısa Araştırma

Kısa Araştırma makaleleri tarz ve format açısından Orijinal Araştırma makaleleri gibidir; ancak daha küçük ölçekli araştırmaları ya da geliştirme çalışmasının erken aşamalarında olan araştırmaları ele alır. Basit araştırma tasarımı kullanan ön çalışmalar, sınırlı pilot veri sağlayan küçük örnek kitle ile yapılan çalışmalar, ileri araştırma gereksinimine işaret eden başlangıç bulguları bu tür araştırmalar kapsamında sayılabilir. Kısa Araştırma makaleleri, büyük ölçekli gelişkin araştırma projelerini konu alan Orijinal Araştırma makalelerinden daha kısadır. Ancak Kısa Araştırma, Orijinal Araştırma makalesi olabilecek kalitede bir araştırma makalesinin kısa versiyonu olarak anlaşılmamalıdır; önem derecesi düşük, titizlikle yapılmamış bir araştırma hakkında bir yayın malzemesi hazırlamak için kullanılmamalıdır ya da genişletildiğinde Orijinal Araştırma makalesi ya da araştırma niteliği kazanmayacak bir içeriği değerlendirecek bir makale türü olarak anlaşılmamalıdır.

Olgu Sunumu

Olgu sunumu makaleleri özgün vakaları rapor eden yazılardır. Derginin kapsamına giren konulara ilişkin bir problemin üstesinden gelen tedaviyle ilgili, yeni araçlar, teknikler ve metotlar göstererek okuyucular için bilgilendirme sağlamalıdır. Olgu sunumu yazıları Öz (özün araştırma makalesinde olduğu gibi belli bir formatta yapılandırılmış olması gerekmiyor), Anahtar Kelimeler, Giriş, Olgu Sunumu, Tartışma, Referanslar, gerekirse Tablo ve açıklayıcı bilgilerden oluşur. Olgu sunumunda yazılı bilgilendirilmiş onam alınmalı ve makalede belirtilmelidir.

Derleme

Derleme makaleleri alanında zengin birikime ve atıf alan çalışmalara sahip uzman kişilerce yazılan yazılardır. Klinik pratiğe ilişkin bir konuda mevcut bilgiyi tanımlayan, değerlendiren ve tartışan; geleceğe ilişkin çalışmalara yol gösteren derleme yazıları yazmaları için dergi belirlediği yazarlara davet gönderir. Derleme makaleleri, Öz (özün, araştırma makalesinde olduğu gibi belli bir formatta yapılandırılmış olması gerekmiyor), Anahtar Kelimeler, Giriş, Sonuç bölümlerinden oluşur. Derleme makale gönderen yazarların, makalede kullandıkları verinin seçimi, alınması, sentezi için kullandıkları yöntemleri tanımlayan bir bölüme de makalede yer vermeleri gerekir. Bu yöntemler Öz bölümünde de belirtilmelidir.

YAZARLARA BİLGİ

Editöre Mektup

Editöre Mektup, kısa ve net görüş bildiren yazılardır. Dergide daha önce yayınlanmış olan makalelerle ilgili olarak ya da dergide ifade edilmiş görüşlerle ilgili olarak yazılmış olması tercih edilir. Editöre Mektup yazıları, daha sonra yeni bir yazı ile geçerlilik ispatı gerektirebilecek ön görüş bildiren yazılar olmamalıdır.

Tablolar

Tablolar bilgileri etkin bir şekilde gösterir ve ayrıca bilginin istenen tüm ayrıntı seviyelerinde verilmesini sağlar. Bilgileri metin yerine tablolarda vermek genelde metnin uzunluğunu kısaltır.

Her tablo ayrı bir sayfaya çift aralıklı olarak basılmalıdır. Tablolar metindeki sıralarına göre numaralanıp, her birine kısa bir başlık verilmelidir. MS Word 2003 ve üstü versiyonlarında otomatik tablo seçeneğinde "tablo klasik 1" ya da "tablo basit 1" seçeneklerine göre tablolar hazırlanmalıdır. Başlık satırı ve tablo alt üst satırları dışında tablonun içinde başka dikey ve yatay çizgiler kullanılmamalıdır. Her sütuna bir başlık verilmelidir. Yazarlar açıklamaları başlıkta değil, dipnotlarda yapmalıdır. Dipnotlarda standart olmayan tüm kısaltmalar açıklanmalıdır. Dipnotlar için sırasıyla şu semboller kullanılmalıdır: (*,†,‡,§,ǁ,¶,**,††,‡‡).

Varyasyonun standart sapma ya da standart hata gibi istatistiksel ölçümleri belirtilmelidir. Metin içinde her tabloya atıfta bulunulduğuna emin olunmalıdır. Eğer yayınlanmış ya da yayınlanmamış herhangi başka bir kaynaktan veri kullanılıyorsa izin alınmalı ve onlar tam olarak bilgilendirilmelidir. Çok fazla veri içeren tablolar, çok yer tutar ve sadece elektronik yayınlar için uygun olabilir ya da okuyuculara yazarlar tarafından doğrudan sağlanabilir. Böyle bir durumda uygun bir ifade metne eklenmelidir. Bu tip tablolar, hakem değerlendirmesinden geçmesi için makaleyle beraber gönderilmelidir.

Şekiller

Şekiller ya profesyonel olarak çizilmeli ve fotoğraflanmalı ya da fotoğraf kalitesinde dijital olarak gönderilmelidir. Şekillerin basıma uygun versiyonlarının yanı sıra JPEG ya da GIF gibi elektronik versiyonlarda yüksek çözünürlükte görüntü oluşturacak biçimlerde elektronik dosyaları gönderilmeli ve yazarlar göndermeden önce bu dosyaların görüntü kalitelerini bilgisayar ekranında kontrol etmelidir.

Röntgen, CT, MRI filmleri ve diğer tanısal görüntülemeler yüksek kalitede basılmış olarak gönderilmelidir. Bu nedenle şekillerin üzerindeki harfler, sayılar ve semboller açık ve tüm makalede eşit ve yayın için küçültüldüklerinde bile okunabilecek boyutlarda olmalıdır. Şekiller mümkün olduğunca tek başlarına anlaşılabilir olmalıdır. Fotomikrografik patoloji preparatları iç ölçekler içermelidir. Semboller, oklar ya da harfler fonla kontrast oluşturmalıdır. Eğer insan fotoğrafı kullanılacaksa, ya bu kişiler fotoğraftan tanınmamalıdır ya da yazılı izin alınmalıdır (Etik bölümüne bakınız).

Şekiller metinde geçiş sıralarına göre numaralandırılmalıdır. Eğer önceden yayınlanmış bir şekil kullanılacaksa, yayın hakkını elinde bulunduran bireyden izin alınmalıdır. Toplum alanındaki belgeler hariç yazarlığa ve yayıncıya bakılmadan bu izin gereklidir. Basılacak bölgeyi gösteren ek çizimler editörün işini kolaylaştırır. Renkli şekiller editör gerekli gördüğünde ya da sadece yazar ek masrafı karşılarsa basılır.

Şekillerin Dipnotları

Ayrı bir sayfadan başlayarak şekiller için tablo başlıkları ve dipnotları tek aralıklı olarak ve Arap sayıları ile hangi şekle karşı geldikleri belirtilerek yazılmalıdır. Semboller, oklar, sayılar ya da harfler şeklin parçalarını belirtmek için kullanıldığında, dipnotlarda her biri açıkça tanımlanmalıdır. Fotomikrografik patoloji preparatlarında iç ölçek ve boyama tekniği açıklanmalıdır.

Ölçüm Birimleri

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Raymond NC, Specker S, Eckert ED, et al. Increased mortality in bulimia nervosa and other eating disorders. Am J Psychiatry 2009;166(12):1342-1346.

MEDLINE'da yer almayan ve kısaltması olmayan dergi makalesi için: Sevinçer GM, Konuk N. Emotional eating. Journal of Mood Disorders 2013;3(4):171-178.

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3. Baskıdaki makale için:

Cossrow N, Pawaskar M, Witt EA, Ming EE, Victor TW, Herman BK, et al. Estimating the prevalence of binge eating disorder in a community sample from the United States: comparing DSM-IV-TR and DSM-5 criteria. J Clin Psychiatry, 2016. (in press).

4. Kitaptan alıntılar:

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Çeviri Kitaptan Alıntı için:

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7. Online Makale:

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ORIGINAL RESEARCH

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Spinal Metastasis as Presenting Feature of Follicular Type Thyroid Carcinoma: A Case Report and Review of the Literature

Spinal Metastazla Belirti Veren Folliküler Tip Tiroid Karsinomu: Olgu Sunumu ve Literatür Taraması

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Abstract

Objective: Follicular type thyroid carcinoma (FTC) rarely presented with spinal metastasis. We aimed to report such a case and to review the literature.

Method: A 45 year old male with L2 metastasis of FTC was reported, and other 26 cases were found in literature. Characteristics of the patients and tumors were evaluated.

Results: Total 27 patients were 55.2±15 years of age, and male/female ratio was 12/15. Nineteen patients had paresis of extremities, 9 of them could not mobilize on admission. Total resection of the spinal tumor had been performed in 14 cases and subtotal resection in 5. Radioactive iodine treatment had been added in 20 cases with or without other adjuvant treatment. Twenty-three patients had been followed for 43.7±53.2 months. Only four of them died 214, 66, 36 and 7 months after their presentations. Out of other 19 cases, 13 had been neurologically normal. Type of surgery (total resection versus others) the only factor affecting outcome. In the patients treated with total resection, outcome had been statistically better.

Conclusion: Spinal metastasis as initial finding is very rare in the patients with FTC. However, prognosis is quite well with total tumor resection and adjuvant treatment. This cancer type must be kept in mind for differential diagnosis and must be screened in the patients with spinal tumors.

Keywords: Differentiated thyroid carcinoma, follicular type thyroid carcinoma, spinal metastasis, spinal tumor

Öz

Amaç: Folliküler tip tiroid karsinomu (FTK) nadiren spinal metastazla belirti verir. Böyle bir olgu sunmayı ve bu konuda literatür taramayı amaçladık.

Yöntem: Lomber 2 spinal metastazla belirti veren 45 yaşında erkek FTK olgusu sunuldu ve literatürde benzer 26 olgu bulundu. Tüm olguların özellikleri değerlendirildi.

Bulgular: Toplam 27 olgu 55,2±15 yaşındaydı (35-88 arasında, ortalama ± SS) ve erkek/kadın oranı 12/15 idi. Başvuruda 19 olguda kol ve/veya bacaklarda güçsüzlük vardı ve 9'u mobilize olamıyordu. Spinal tümör 14 olguda total, 5 olguda subtotal çıkarıldı. Yirmi olguya radyoaktif iyot tedavisi eklendi. Olguların 23'ü 3-214 ay (43,7±53,2, ortalama ± SS) süreyle izlenmişti, sadece 4 olgu başvurudan 214, 66, 36 ve 7 ay sonra ölmüştü. Halen sağ olan 19 olgunun 13'ü nörolojik olarak normaldi. Uygulanan cerrahi tipi (total çıkarmaya karşılık diğer cerrahi tipleri) son durumu etkileyen tek faktör olarak saptandı. Tümörü total çıkarılan hastalarda sondurum anlamlı olarak daha iyiydi.

Sonuç: Folliküler tip tiroid karsinomunun spinal metastazla belirti vermesi çok nadirdir. Ancak total tümör çıkarılması ve adjuvan tedaviyle prognoz iyidir. Spinal tümörlü hastalarda bu kanser tipi de ayrıcı tanıda akılda tutulmalı ve tarama testleri yapılmalıdır.

Anahtar kelimeler: Diferansiye tiroid karsinomu, folliküler tip tiroid karsinomu, spinal metastaz, spinal tümör

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Introduction

Differentiated thyroid cancers (DTC) contain papillary, follicular and Hurthle cell types. Follicular type thyroid cancer (FTC) is the second most frequent type of DTCs, and it is more inclined to metastasize to the bone than papillary type (1). This characteristic is probably due to that FTC usually spreads via blood, however, papillary type prefers lymphatic route for dissemination (2). There is bone involvement in 7-12% of the cases with FTC (3), and the most frequently involved region is spinal column (4). However, most of the spinal metastases occur in the late stage of the disease, and presentation of the disease with spinal metastasis is extremely rare during initial diagnosis.

We presented such a rare case who was admitted with lumbar spinal metastasis, and thyroid cancer was diagnosed after pathological evaluation of the spinal tumor. Also we reviewed the literature for presentation with spinal metastasis of FTC, and we evaluated the characteristics of the cases that we found.

Case Report

A 45 year-old male was admitted to our outpatient clinic with complaints of low back and severe left leg pain and numbness of left leg for 5 months. There was hypoesthesia on left L1 and L2 dermatomes on his physical examination. Muscle strength was full. Radiological examinations revealed an L2 vertebral body tumor. On lumbar computerized tomography (CT) examination, an osteolytic heterogeneous tumor involving left half of the L2 vertebral body extending into the left paravertebral muscles and into the left L1-2 and L2-3 neural foramens was seen (Figure 1). On lumbar magnetic resonance imaging (MRI), it was hypointense on T1-weighted images, and heterogeneous hypo- and hyperintense on T2-weighted images (Figure 2). The lesion was hypermethabolic on positron emission tomography (PET) CT, and there were also a hypermethabolic enhancement in the left thyroid lobe and mildly hypermethabolic bilateral multiple cervical lymph nodes.

A lumbar biopsy was performed and a carcinoma consistent with FTC was diagnosed (Figure 3a). It was decided to perform tumor resection and stabilization for lumbar tumor first because there was severe leg pain of the patient and instability of the lumbar spine, and also the tumor was the sole metastasis on the PET-CT. Total tumor resection and stabilization with interbody cage insertion and pedicle screw fixation was performed via posterior approach (Figure 4). There was not residual tumor on postoperative MRI.

Immunohistochemical investigations revealed that the tumor cells were positive for thyroglobuline, thyroid transcription factor 1 (TTF-1), Hector Battifora mesothelial cells 1 (HBME-1) and cytokeratin-19 (CK-19), and negative for calcitonin (Figure 3b-f). These findings verified the diagnosis of DTC.

Total thyroidectomy was performed by endocrine surgery team 10 days after our lumbar operation, and pathological

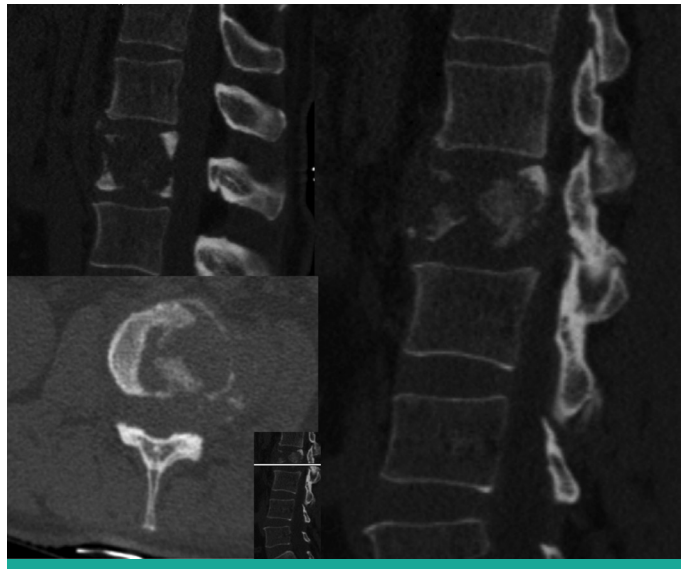

Figure 1. Sagittal and axial sections of the lumbar vertebral computerized tomography demonstrating lytic L2 vertebral tumor extending into the left paravertebral region and neural foramens

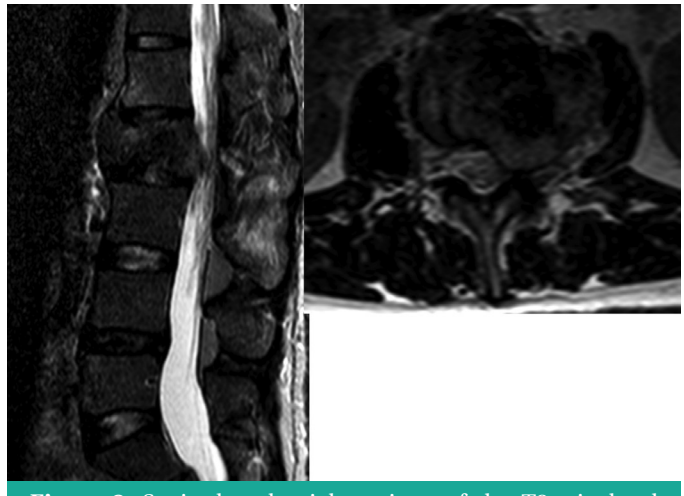

Figure 2. Sagittal and axial sections of the T2-wieghted lumbar spinal magnetic resonance imaging demonstrating heterogeneous hypo- and hyperintense tumor in the L2 vertebral body compressing the nerve roots

examination revealed follicular type carcinoma. He was treated with iodine 131 ablation. His follow-up examinations were uneventful, and there was not recurrence or new metastasis 2 years later.

Material and Methods

Review of the literature: we reviewed the literature for spinal metastasis as presenting feature of FTC from Medline and Google Scholar. We found 28 such cases. However 2 cases were not introduced into the study because there was not adequate data in the articles (5,6). The characteristics of total 27 cases including our one were evaluated (1,2,4,7-24) (Table 1). Demographic characteristics, levels and numbers of the spinal metastases, neurological conditions, other metastases, treatment modalities, follow-up time, and outcome of the cases were recorded.

Outcome was accepted as good if the patient was neurologically normal or could mobilize without external support, and it was accepted as poor if the patient could not mobilize without support or was dead.

Statistical Analysis

For statistical analysis, chi-square test, Fisher exact test, and Student's t-tests were used, and $p<0.05$ was accepted as significant.

Results

The patients were 55.2±15 years of age (mean ± SD, between 35 and 88), and male/female ratio was 12/15. The most involved levels were thoracic and thoracolumbar segments. The involved vertebral levels in the patients were shown in the Table 2.

The lesion was intradural extramedullary (IDEM) in one case (20), and vertebral and/or epidural in the others. The IDEM tumor extended beyond 2 lumbar levels. In the others, only one vertebra was involved in 11 patients, 2 adjacent vertebrae in 5, and 3 adjacent vertebrae in 7 were involved. Most of the patients had solitary vertebral metastases or multiple adjacent levels involvement. In

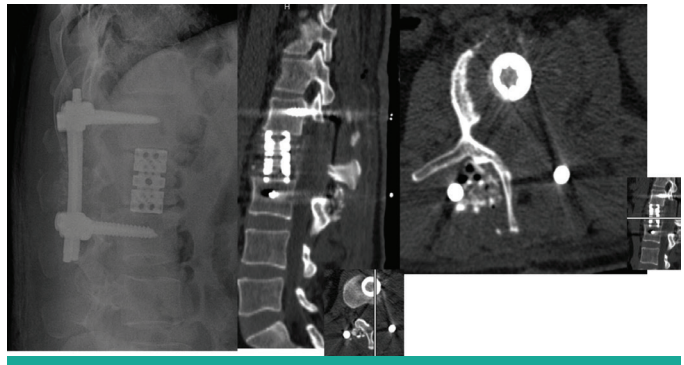

Figure 4. Lateral lumbar radiograph and sagittal and axial lumbar computerized tomography demonstrating total tumor resection and spinal stabilization with interbody cage and pedicle screws

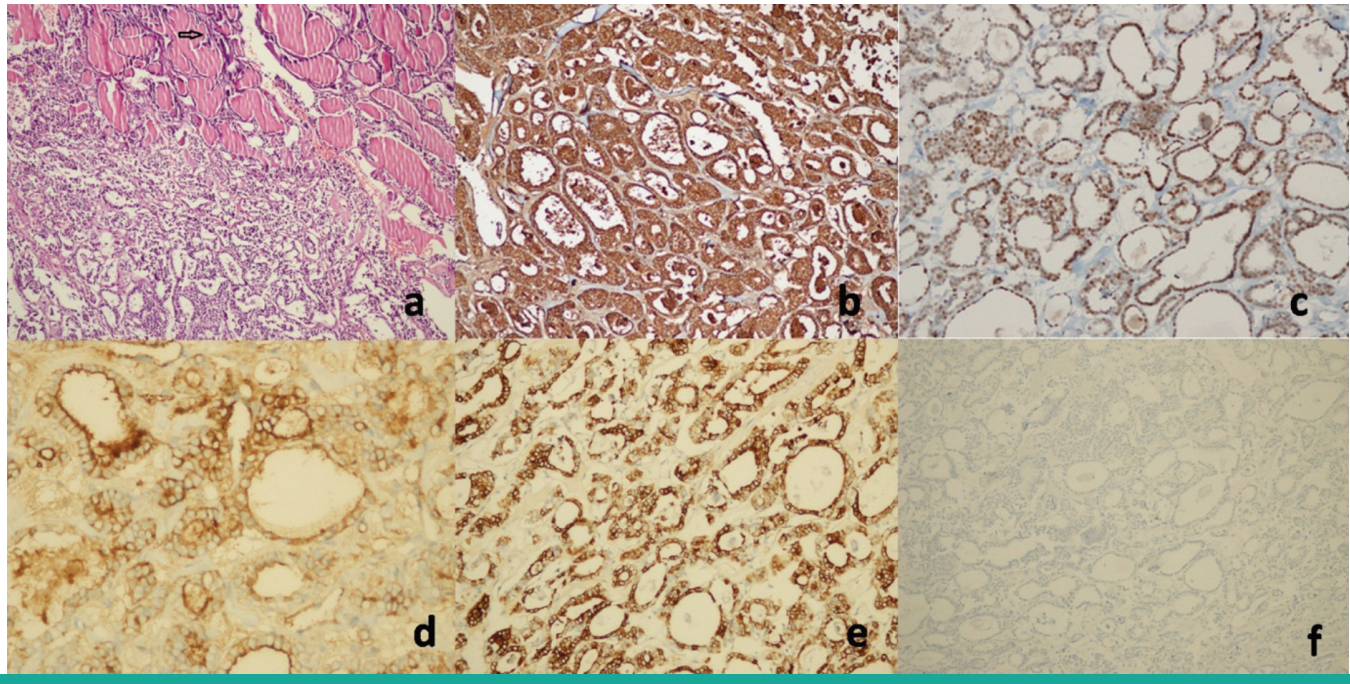

Figure 3. a) Spinal metastasis of the thyroid carcinoma, hematoxylin-eosin (HE) x10. The arrow indicated the tumor cells with colloidal appearance. b) Thyroglobuline (anti-Tg antibody, x10), c) TTF-1 (anti-TTF-1 antibody, x20), d) HBME-1 (anti-HBME-1 antibody, x40), and e) CK-19 (anti-CK-19 antibody, x20) positivity, and f) calcitonin negativity

Table 1: Characteristics of the patients and tumors

No	Literature	Age/ gender	Level	Neurologic Finding	Other metastases	Surgery	Thyroid surgery	Other treatment	FU (mos)	Outcome
1	Akhtar (7)	52/M	L4-5	Paraparesis 4/5	Rib	TR/St	TT	RAI	12	Good (ASIA E)
2	Baiao (8)	84/F	T7-8-9	Paraparesis 0/5	No	B	TT	RAI	6	Poor (ASIA B)
3	Carhill (1)	49/F	S1	Pain	Ilium, multiple lung and liver	B	TT	RAI	43	Good (ASIA E)
4	Chafiki (9)	81/F	L4-5-S1	Paraparesis 0/5	No	B	TT	RAI	NM	NM
5	Chander (4)	57/F	L3	Right leg weakness	NM	TR/St	NM	RAI	61	Good (KPS 80)
6	Dong (10)	48/F	C2-3	Paresis of both arms	C5, L1, S1,	D	TT	RAI	52	Good (ASIA E)
7	Khan (11)	35/F	T11-12-L1	Paraparesis 1/5	NM	D	NTT	RAI	6	Good (ASIA E)
8	Kim (12)	72/M	L4	Right big toe DF weakness	No	TR	TT	RAI	15	Good (ASIA E)
9	McNeely (2)	88/F	T8-9-10	Paraparesis 3/5	Multiple lung nodules	B	No	RT/TSH	NM	Poor (could not walking)
10	Ogbodo (13)	79/F	L1-2 IDEM	Right leg weakness 3/5	Multiple lung nodules	TR	No	RT	6	Good (ASIA E)
11	Okutan (14)	33/F	L3	Paraparesis 4/5	No	TR/St	TT	RAI	NM	NM
12	Sandu (15)	50/F	T11	Pain	Multiple lung nodules, L3, ilium, femur	D/St	TT	RAI	45	Good (ASIA E)
13	Sharma (16)	39/M	S1-2-3	Urinary incontinence	No	B	TT	RT/RAI	12	Good
14	Sharma (16)	35/F	T2-3	Paraparesis NM	No	D	TT	RT/RAI	6	NM
15	Shibuya (17)	67/F	L4	Pain	No	B, D/St (2yrs), D/St (5 yrs)	TT	RT/RAI	66	Died/lung metastases
16	Toshkezi (18)	55/M	T4-5-6	Paraparesis 4/5	No	TR	NTT	RAI	36	Good (ASIA E)
17	Upreti (19)	55/F	C1-2	Tetraparesis 0-2/5	NM	D/St	TT	RAI	3	Poor (could not walking)
18	Hakeem (20)	58/M	L2	Paraparesis 4/5	No	TR/St	TT	RT/RAI	36	Good (ASIA E)
19	Hakeem (20)	50/M	T1-T2	Pain	No	TR/St	TT	RT/RAI	36	Died/systemic metastases
20	Matsumoto (21)	48/M	T8	Paraparesis 4/5	No	TR/St	NM	NM	156	Good (ASIA E)
21	Matsumoto (21)	42/M	T8-9-10	Paraparesis 3/5	No	TR/St	NM	NM	125	Good (ASIA D)
22	Scarrow (22)	50/M	C6	Pain	No	TR	TT	RAI	NM	NM
23	Goldberg (23)	65/F	C2	Paresthesia on one hand	No	TR	NTT	RAI	28	Good (ASIA E)
24	Goldberg (23)	43/F	T1	Paraparesis	No	Biopsy	STT	RT	7	Ex
25	Brodner (24)	57/M	T5-6	Paraparesis	No	TR	TT	RAI	12	Good (ASIA D)
26	Brodner (24)	56/M	L2, C6	Paraparesis	No	No	TT	RAI	214	Ex due to leukemia
27	Our patient	45/M	L2	Pain	No	TR/St	TT	RAI	24	Good (ASIA E)

ASIA: American spinal cord injury association, D: Decompression, IDEM: Intradural extramedullary, NM: Not mentioned, KPS: Karnofsky performance score, NTT: Near total thyroidectomy, RAI: Radioactive iodine, St: Stabilization, STT: Subtotal thyroidectomy, TR: Total resection, TT: Total thyroidectomy

Table 2: The involved vertebral levels of the patients. The presenting levels were shown as red boxes, and the associated involved levels were shown as green boxes

Level	Patient 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
C1																											
C2																											
C3																											
C4																											
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only 3 patients, there was multiple non-adjacent vertebral levels involvement. There were 5 patients with other bony metastases and/or systemic metastases such as lung or liver.

Nineteen patients were presented with paresis of arms and/or legs (9 of them could not mobilize without support), one with urinary incontinence and other 7 with back, neck, arm, or leg pain.

Various surgical modalities were performed in the patients. They could be classified as biopsy (in 7 cases), decompression with subtotal resection of the tumor (with or without stabilization, in 5 cases), and total resection of the tumor (with or without stabilization, in 14 cases). Any surgical procedure was not performed in one patient. Spinal stabilization was performed in total 10 patients during first surgery. In one patient in whom biopsy was performed first, subtotal resection and stabilization was performed in 2 times, 2 and 5 years after first biopsy.

Total or near total thyroidectomy was performed in 21 patients and subtotal thyroidectomy in one patient after spinal operation. Thyroid resection was not performed in 1 case and it was not mentioned in the article in 4. In 2 cases, adjuvant treatment modalities were not mentioned in the articles, only radioactive iodine treatment (RAI) was performed in 17 cases, only radiotherapy (RT) for spinal lesions in 3 cases, and RAI and RT in combination in 5 cases.

The follow-up time was not mentioned in the articles in 4 cases. Other 23 cases were followed during 3 to 214 months (43.7±53.2, mean ± SD). Outcome was not mentioned for 3 patients. Three cases died due to systemic metastases of the disease 66, 36 and 7 months after their spinal surgeries, and one case died due to leukemia 214 months after diagnosis of the thyroid cancer. This last case was neurologically normal without systemic disease until development of his second neoplastic disease. Out of other 19 cases, 15 had good outcome with good neurological condition and without systemic disease (12 of them were neurologically normal), 3 cases had severe neurological deficits, and one case alive with systemic disease, but neurologically normal. Some patients who were severe neurological deficits before operation were neurologically normal on last follow-up (11,13,21).

Presence of other distant metastases did not affect the last outcome (p=0.51). However, the type of the spinal surgery was found as an important factor on last outcome of the patient. The rate of good outcome was statistically higher in the patients performed total resection of the spinal metastasis than to be in the patients with only decompression or biopsy or without any surgical modality (p=0.027).

Discussion

Follicular type thyroid cancers constitute 15% of the DTCs (1). They are well-differentiated tumors and have good outcome when they are compared with other cancers. However, bony metastasis is not rare in the cases with FTC (2). Rate of bony metastasis of FTC was reported as 7 to 20% and the rate of spinal metastasis as 1 to 7% (7,25). This characteristic is probably due to spreading ability via blood of FTC in contrary to the lymphatic spreading tendency of the papillary thyroid cancer (1,2). FTC may synthesize some substrates providing attachment to bone matrix and promoting to bone reabsorbtion (1).

The FTC usually presents as tyhroid nodules. Presentation with distant metastases is quite rare, and it was reported in 1.9% to 11% of the cases with FTC (6,26). Presentation with spinal cord compression due to spinal metastases is extremely rare. Pomorski and Bartos (6) reported only one case out of 309 FTC cases. We could only find 26 cases in literature and we added our case. In the series reported by Marcocci et al. (25), there were 18 patients whose presenting symptoms were related to bony metastases, however, it was not mentioned that how much of them were spinal metastases.

Survival of the DTCs is very long. It was reported that 10 year survival rate was about 80-95%. However presence of bony distant metastases caused to decrease of this rate (12). Shaha et al. (26) reported that long-term survival in the cases with distant metastasis during initial presentation was quite high as 44%. On the other hand, in spite of this long survival trend, presence of spinal metastases causes to reduce quality of life due to severe pain and/or neurological deficits (27). Coleman (28) reported in a retrospective study that spinal metastases of the DTCs more frequently cause spinal cord compression than other spinal metastases. Most of the cases reviewed in our study had neurological deficits and 10 of them could not mobilize on their admissions, and the patients without deficits had severe pain due to spinal metastases.

Reeve et al. (29) reported in a series consisting 258 cases with DTCs that age and gender were the most important factors affecting long-term outcome, and older patients (<60 years) and males had significantly shorter survival. In our review, we could not perform survival analysis because most of the cases were still alive on their last follow-up.

However, both age and gender of the cases did not affect the rate of good outcome.

Total resection of the spinal metastases of the DTCs is usually recommended because of their resistance to radiotherapy. Furthermore, spinal metastases of the DTCs are usually isolated metastases (27). In our review, also, there were associated other bony or systemic metastases in only 5 cases. Demura et al. (5) reported in a study evaluating the results of total en bloc spondylectomy for spinal metastases of thyroid carcinoma that there was no significant difference between the rate of long survival after total spondylectomy and debulking surgery, however, the rate of local recurrence was significantly higher in the cases treated with debulking surgery than the cases treated with total spondylectomy. In our review, the rate of good outcome was significantly higher in the patients whose spinal metastases were totally resected. However, in our study, the term of "total resection" was not similar to "total en bloc spondylectomy" in the study by Demura et al. (5) We classified total tumor resection only without total spondylectomy also as total resection. Response to RAI of DTC is very well, and the guidelines recommended adding this treatment modality to high risk group patients such as the ones with distant metastases (30). To add RAI into the treatment protocol may provide to take away the mandatory of total en bloc resection of the vertebrae with metastases.

Embolization of the spinal metastasis of DTCs before operation may be a smart choice because of tendency of these tumors to profuse bleeding (4). Sellin et al. (31) reported in a study evaluating the factors affecting survival of the patients with spinal metastases of thyroid carcinoma that preoperative embolization was significantly associated with fewer complications. However, in the patients whose spinal metastases are the initial presentation, this choice can usually not be performed because the primary tumor is not known yet. In the patients presented with only pain without paresis, spinal biopsy may be performed and histological diagnosis can be provided before operation. However, emergency decompression may be required in some patients because of spinal cord or cauda compression, and there may not be adequate time for biopsy or embolization.

The Guideline of American Thyroid Association (ATA) reported in 2016 recommended resection of the lesion, stereotactic radiation treatment (RT) and RAI for treatment of central nervous system metastases of the DTCs (32). In our review, only 8 patients had received RT, therefore, we could not evaluate its efficacy on last outcome. Bernier et al. (33) recommended to perform total resection of bony metastases and RAI treatment instead of RT in the young patients (<45 years) with bony metastases of the FTC.

Biochemical thyroid functional tests are usually in normal levels in the patients with thyroid cancers (13), therefore, routine tests usually do not provide diagnosis of thyroid cancer in the cases with spinal tumors, and some imaging tests such as thyroid ultrasonography are required during primary site screening. In the cases with cervical spinal tumors, cervical MRI can provide diagnosis of the primary thyroid tumors however most of the spinal metastases of the DTCs are located in the thoracic and lumbar levels. Therefore, if the more possible sites such as breast, lung or prostate are negative in the screening tests, thyroid screening with imaging modalities must certainly be added to the screening protocol of the spinal tumors. PET is also a very valuable method to show both primary site of the cancer and metastases (34).

Survival of the patients with spinal metastases due to DTCs is quite long. Sellin et al. (31) reported median 15.4 months in 43 cases, and Bernier et al. (33) reported 4.1 years. We could not evaluate the survival time of the patients in our review because most of them was still alive on their reported last follow up time. However, their follow up times were quite long (43.7±53.2).

Conclusion

In conclusion, spinal metastasis as initial finding is very rare in the patients with FTC. However, this diagnosis must be kept in mind especially in the cases whose primary tumor site could not be found with routine cancer screening, and imaging modalities for thyroid must be added. Although survival of the patients with spinal metastases of FTC is significantly shorter than without spinal metastases, it is very longer than the patients with spinal metastases of other cancer types. Surgical resection of the spinal metastases especially in the patients with spinal cord or cauda equine compression, total/near total thyroidectomy and RAI treatment may provide a long term disease free survival to the patients.

Ethics

Ethics Committee Approval: N/A.

Informed Consent: N/A.

Peer-review: Externally peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: A.T., B.E., A.T., N.B., Concept: A.T., B.E., A.T., N.B., Ö.Y.A., İ.G., M.S.V., M.K., G.V., F.K.G., Design: A.T., B.E., A.T., N.B., Ö.Y.A., İ.G., M.S.V., M.K., F.K.G., Data Collection or Processing: A.T., B.E., A.T., Ö.Y.A., İ.G., M.S.V., M.K., G.V., F.K.G., Analysis or Interpretation: A.T., B.E., A.T., N.B., Ö.Y.A., İ.G., M.S.V., M.K., G.V., F.K.G., Literature Search: A.T., B.E., A.T., G.V., F.K.G., Writing: A.T., B.E., A.T., N.B., Ö.Y.A., İ.G., M.S.V., M.K., G.V., F.K.G.

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ORIGINAL RESEARCH

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Evaluation of Readmitted Patients After Intensive Care Unit Discharge (Retrospective Study)

Yoğun Bakım Ünitesinden Taburcu Sonrası Tekrar Yatışı Yapılan Hastaların Değerlendirilmesi (Retrospektif Çalışma)

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Abstract

Objective: Nearly %10 of the discharged patients are readmitted to intensive care unit (ICU) at the same hospital stay. Reduction of readmission rates could be used as a hospital performance indicator. Our aim is to analyse the reasons and results of readmissions of patients who were discharged to a general ward from ICU in a two-year period.

Method: Readmissions of the patients who had been treated in our ICU between the dates of 01.01.2015-31.12.2016 were analysed retrospectively. Demographic characteristics of patients, readmission rates, initial admission indications and comorbidities, distribution of readmission indications, timing of readmission after discharge, distribution of patients in terms of mechanical ventilation need, discharge time of readmitted patients at initial admission to ICU after weaning, readmission mortality rates, Glasgow Coma Scale (GCS), APACHE-II and SOFA scores of patients at initial admission and readmission were analysed and compared.

Results: 59 patients (3.55%) are readmitted to ICU after discharge at the same hospital stay. When examining the departments where the readmitted patients came from, it is seen that 19 patients (32.2%) were readmitted to ICU from department of general surgery. 22 of readmissions (37.29%) occurred within first 48 hours after discharge. The most common reasons of readmissions are for postoperative monitoring after revisional surgery (44.07%) and acute respiratory failure (40.68%).

Conclusion: The patients who are discharged from ICU are at a high risk of being readmitted to ICU (35). Readmission to ICU is associated with higher mortality risk than the initial admission. The first step of reducing

Öz

Amaç: Taburcu edilen hastaların yaklaşık %10' u yatış süresi içerisinde yeniden yoğun bakım ünitesine (YBÜ) gitmektedir. YBÜ'ye yeniden yatış oranlarındaki azalma, hastane performansında bir kalite göstergesidir. Bu çalışmadaki amacımız, YBÜ'den hastane içine, iki yıllık süre içerisinde taburcu edilen hastaların yeniden yatışlarının nedenlerini ve sonuçlarını analiz etmektir.

Yöntem: 01.01.2015-31.12.2016 tarihleri arasında hastanemiz YBÜ'de tedavi edilen hastaların tekrar yatışları geriye dönük olarak incelendi. Hastaların demografik özellikleri, tekrar yatış oranları, hastaların ilk yatış endikasyonları ve yandaş hastalıkları, tekrar yatışların endikasyonlarına göre dağılımı, tekrar yatışın taburculuk sonrası ne zaman gerçekleştiği, mekanik ventilasyon ihtiyacına göre hastaların dağılımı, tekrar yatışı olan hastaların birinci kabullerinde weaning sonrası taburcu olma zamanı, tekrar yatışlardaki mortalite oranları, hastaların YBÜ'ye ilk ve tekrar yatışındaki Glasgow Koma Skalası (GCS), APACHE-II ve SOFA skorları incelenerek kıyaslandı.

Bulgular: YBÜ'den taburcu edilen ve hastaneden taburcu olmadan tekrar yatışı yapılan hasta sayısı 59 olarak bulundu (%3,55). Hastaların tekrar geldikleri bölümler incelendiğinde en fazla 19 (%32,2) hasta Genel Cerrahi Kliniği'ndendi. Tekrar kabul edilen hastaların 22'si (%37,29) taburcu edildikten sonraki ilk 48 saat içinde gerçekleşti. Tekrar kabul edilen hastaların en sık nedenleri; revizyon cerrahisi sonrasında postoperatif monitorizasyon (%44,07) ve akut solunum yetersizliği (%40,68) olarak belirlendi.

Sonuç: YBÜ'den taburcu edilen hastalar, tekrar YBÜ'ye kabul için yüksek risk altındadırlar. Yoğun bakım ünitesine geri kabul, ilk kabulden çok

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Abstract

the rates of readmission to ICU process is to anticipate the patients who would be readmitted to ICU priorly and improve service wards healthcare quality.

Keywords: Readmission, intensive care unit, critical patient

Öz

daha yüksek mortalite oranları ile ilişkilidir. YBÜ'ye geri kabul oranlarını azaltmadaki önemli adım, önceden hastaları tanımak, tanımlamak ve servis bakım düzeylerini yükseltmektir.

Anahtar kelimeler: Tekrar yatış, yoğun bakım ünitesi, kritik hasta

Introduction

Readmission to intensive care unit (ICU) is frequently seen in critically ill patients (1,2). Nearly %10 of patients who has been discharged from ICU to a ward are being readmitted to ICU at the same hospital stay (3). Readmission is a risky condition; it is associated with increased mortality and longer length of hospital stay (4, 5). Also the financial effects of treatment are remarkable, costs gets higher (6). Decrease in readmission rates to ICU is seen as a quality indicator of a hospital performance (7). First step of lowering readmission rates to ICU is to anticipate which patients could be readmitted.

In this study, our aim is to analyze the reasons and results of readmission to ICU of our hospital at a two year period.

Material and Methods

Readmissions of the patients who had been treated in our ICU between the dates of 01.01.2015-31.12.2016 were retrospectively analyzed by the approval University of Health Sciences İstanbul Bağcılar Training and Research Hospital Ethics Committee dated 27.12.2016 and numbered 2016/526.

Data of patients who were discharged to a general ward from 20 bed ICU and readmitted back in the same hospital stay were obtained from patient files and electronic patient record system.

Demographic characteristics of patients, readmission rates, initial admission indications and comorbidities, distribution of readmission indications, timing of readmission after discharge (within 48 hours it is considered as early readmission), distribution of patients in terms of mechanical ventilation need, discharge time of readmitted patients at initial admission to ICU after weaning, readmission mortality rates, Glasgow Coma Scale (GCS), APACHE-II ve SOFA scores of patients at initial admission and readmission were analyzed and compared.

Comparative statistical analysis was performed with NCSS (Number Cruncher Statistical System) 2007 Statistical Software (Utah, USA). At analysis, descriptive statistical methods (mean value, standard deviation and percentile rank) were used as well as independent samples t-test for the comparison of two-sample groups, paired samples t-test for the comparison of repeated measures and chi-square test for the comparison of qualitative data. We considered $p<0.05$ as statistically significant.

Results

One thousand-nine hundred ninety seven patients received treatment in our ICU during two years period. One thousand-six hundred sixty four patients were discharged (83.32%) and 353 patients died (17.68%) fifty-nine patients (3.55%) were readmitted to ICU after discharge at the same hospital stay (%3.55). Demographic characteristics of patients are shown in Table 1. When examining the departments where the readmitted patients came from, it is seen that 19 patients (32.2%) were readmitted to ICU from department of general surgery. Sixteen patients (27.12%) were readmitted to ICU from department of neurosurgery and 11 patients were readmitted to ICU from department of orthopedics and traumatology (Table 2). Twenty-two

Table 1: Demographic data of the patient: readmitted after intensive care unit discharged

	n=59
Age (year)	61.22±18.80
Gender (M/F)	39/20
Height (cm)	162.75±9.26
Weight (kg)	73.22±7.86
Indication for ICU admission	43 (72.88%) Postoperative monitoring
	5 (8.47%) Polytrauma
	5 (8.47%) Cerebrovascular diseases
	4 (6.78%) Acute respiratory failure
	1 (%) Arrhythmia
	1 (%) Sepsis
Indication for ICU readmission	26 (44.07%) Postoperative monitoring
	24 (40.68%) Acute respiratory failure
	6 (10.16%) Sepsis
	3 (5.08%) Shock

M: Male, F: Female, ICU: Intensive care unit

patients' readmission (37.29%) occurred within first 48 hours and 37 patients' readmission (62.71%) occurred after the first 48 hours. Twenty-one (35.59%) of 59 readmitted patients died, 38 (64.41%) of them were discharged.

Mean length of stay was 6.58±7.44 days for the living patients and 17.29±15.12 days for dead patients. Second length of ICU stay of dead patients was longer than living patients (p=0.002). When readmitted patients were evaluated, mean initial length of stay was 5.89±10.59 days for living patients and 6.19±10.56 days for dead patients (p=0.878).

Mean length of ICU stay was 6±10.49 days at initial admission and 10.39±11.87 days at readmission. Mean length of ICU stay was longer at readmission than the initial admission (p=0.001).

Glasgow coma scale (GCS), APACHE-II ve SOFA scores of patients at initial admission and readmission were analyzed. Mean GCS score was 13.32±2.58 at initial admission and 11.88±3.29 at readmission. Mean GCS score was lower at readmission than the initial admission (p=0.005). Mean APACHE-II score was 11.46±4.60 at initial admission and 15.47±6.15 at readmission. Mean APACHE-II score was higher at readmission than the initial admission (p=0.0001). Mean SOFA score was 1.59±1.48 at initial admission and 2.66 ± 2.05 at readmission. Mean SOFA score was higher at readmission than the initial admission (p=0.001) (Table 3).

Table 3: Comparison of invasive mechanical ventilation support, GCS, APACHE II Score, SOFA score and length of ICU stay between first admission and readmission

	First admission	Readmission	p
Invasive mechanical ventilation support (%)	35.60%	62.71%	<0.05
GCS	13.32±2.58	11.88±3.29	<0.05
APACHE II Score	11.46±4.60	15.47±6.15	<0.05
SOFA Score	1.59±1.48	2.66±2.05	<0.05
Length of ICU stay (day)	6.00±10.49	10.39±11.87	<0.05

GCS: Glasgow coma scale/score, APACHE: Acute physiology and chronic health evaluation, SOFA: Sequential organ failure assessment, ICU: Intensive care unit

Discussion

Readmission to ICU within 48 hours after discharge is used as an important quality indicator by Society of Critical Care Medicine (8).

In our study, 59 patients have been readmitted to ICU during the same hospitalization (3.55%). There is a wide range of readmission rates (5-17.5%) in various studies (1,2). Readmission rate was 9.6% in a study by Jo et al. (9). Rate of readmission to ICU within 48 hours after discharge and within 120 hours after discharge were 2% and 3.7% respectively in a study by Brown et al. (10). Our readmission rate is slightly less than that reported in the literature.

Table 2: Distribution of patients with readmission by their clinic

Readmission to ICU from which clinic	Patients (n=59)	%
General surgery clinic	19	32.20
Neurosurgery clinic	16	27.12
Orthopaedics and traumatology clinic	11	18.64
Urology clinic	7	11.86
Internal medicine clinic	3	5.08
Obstetrics and gynaecology clinic	1	1.69
Plastic, reconstructive and aesthetic surgery clinic	1	1.69
Ear, nose and throat clinic	1	1.69

ICU: Intensive care unit

According to Amin et al. (1), reasons of readmission to ICU are deterioration or relapse of the disease, newly emerged complications irrelevant to initial admission and purpose of follow up with the patients who needs repeating surgery. In a study by Rosenberg et al. (4), it is reported that intensification of symptoms due to improper or delayed treatment may lead to readmission. Prolonged hospital stay and being older than 70 are amongst the risk factors associated with readmission to ICU. Cardivascular and respiratory system problems are prominent causes of readmission (11). Gajic et al. (12) highlight the importance of prolonged ICU stay and lower GCS at the day of discharge. Risk factors for readmission to pediatric ICU are being younger, emergency indications and the critical condition at initial admission (13). Male sex, history of DM, application of continuous renal replacement therapy (CRRT) during ICU stay, white blood cell count on the day of extubation and heart rate just before ICU discharge are also associated with increased risk of ICU (9). When examining the departments where the readmitted patients came from, it is seen that largest number of patients (32.2%) were readmitted to ICU from general surgery clinic because of respiratory failure which is a result of repetitive surgeries for the medical condition.

37.29% of patients' readmissions occurred within the first 48 hours after discharge from ICU. In the literature, cases of readmissions within 48 hours after discharge from ICU are considered as early discharges. Nearly 22-30% of the patients are early discharged (14,15). Our early discharge

rate is higher than that reported in the literature and the most probably reason for this is the bed scarcity that can't meet the high demand. However, there is no mortality rate difference between the patients who are readmitted to ICU within 48 hours or after 48 hours. Brown et al. (10), reported that there is no association between length of ICU stay and readmission to ICU within 48 hours after discharge. Risk factors for readmission within 48 hours are severity of disease, functional condition, length of mechanical ventilation, chronic respiratory or renal disease, chronic immunosuppression and presence of a solid organ tumour (10).

Readmission to ICU is directly proportional to the severity of disease scores (15,16). GCS scores of our patients at readmission are lower than the initial admission. Mean APACHE-II scores at readmission are higher than the initial scores. Chan et al. (7) reported that APACHE-II scores of the patients who were readmitted to ICU and eventually died are the highest and higher APACHE-II score is associated with increased mortality risk. In our study, also average SOFA scores of patients at readmission are higher than the initial admission scores. Higher SOFA score measured at any time during ICU stay is associated with older age, emergency surgery and readmission to ICU (17).

Length of stay is longer and mortality rates are higher at readmission in our study. In a study by Wong et al. (18) the patients who were readmitted to ICU had longer length of stay and their mortality rates significantly increased. It is showed that nearly 22-44% of the patients had been early disharged from ICU (19). Rate of readmission to ICU is considered as a quality indicator, because it can be easily measured. Especially, rate of readmission within the first 48-72 hours after discharge is advised as a clinical performance criteria (20). Even though readmission to ICU is associated with early discharge from ICU and poor clinical outcomes, there are considerable amount of studies in which there is not a convincing connection between readmission and objective quality criterias of an ICU (21,22). It is seen that 10 of 21 patients (47.62%) who needed mechanical ventilation at readmission to ICU have been discharged within first 48 hours after weaning. It is possible to say that if the patients' length of stay at ICU after weaning is shorter than 48 hours, they will be more likely to readmitted to ICU. We believe that the reason of this is the scarcity of bed capacity which is not enough for high demand and the new patients who require ICU care. Early discharge from ICU is one of the most important risk factors for the increased mortality (23). In a study from USA in which more than two hundred thousand discharges from ICU to general wards have been examined retrospectively from hundred and fifty five ICUs, it is understood that length of ICU stay of the patients' gets shorter at the times when the demand for ICU beds arises (24). The patients are more likely to be readmitted to ICU after discharge at these times and it shows us that variations of ICU bed availability is so important that it could effect clinicians' triage decisions. In this high-volume study, despite the pressure of increased demand on triage decisions, in-hospital mortality rate and the probability of home discharge were not negatively effected. Strain spurs providers to reduce their provision of what seems to be low-value care by critically re-examining needs for ICU-level care and transferring patients who could be equally well-managed outside the ICU setting (25,26). Consequently, readmission rates are lower in hospitals which have more ICU beds (27).

Respiratory failure is the most common reason of readmission to ICU in our study. For this reason, after discharging to general wards from ICU we may advice respiratory physiotherapy practices including aspiration, percussion and postural drainage by healthcare providers and a respiratory therapist which might be very beneficial and even could lower the readmission rate.

Choosing the right time to discharge a patient from ICU still remains a challenge (28). Discharging from ICU is protective against iatrogenic and nasocomial complications during ICU stay and it makes ICU available for efficient use and decreases costs (29). When considering the rewards, the decision of discharge from ICU may have some level of risk (30). Unfortunately, after being discharged from ICU to health facilities, the patients are at the risk of reduced monitoring which could lead to delayed recognition of probable complications and clinical deterioration (31,32,33).

Conclusion

In conclusion, the patients who are discharged from ICU are at a high risk of being readmitted to ICU (34). Readmission to ICU is associated with higher mortality risk than the initial admission (35). Considering the funding for ICU services which consumes substantial amount of health resources, a decrease in the readmission to ICU rates can be used as a hospital performance indicator (36-38). The first step of reducing the rates of readmission to ICU process is to anticipate the patients who would be readmitted to ICU priorly and improve general wards healthcare quality (39-41).

Ethics

Ethics Committee Approval: The study was approved by the University of Health Sciences İstanbul Bağcılar Training and Research Hospital Ethics Committee dated 27.12.2016 and numbered 2016/526.

Informed Consent: Retrospective study.

Peer-review: Externally peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: P.Ö.Ç., K.E., M.S.S., S.D., H.Ç., Concept: P.Ö.Ç., K.E., A.S., Design: P.Ö.Ç., K.E., A.S., Data Collection or Processing: P.Ö.Ç., M.S.S., S.D., H.Ç., Analysis or Interpretation: P.Ö.Ç., K.E., A.S., Literature Search: P.Ö.Ç., K.E., M.S.S. Writing: P.Ö.Ç., K.E., H.Ö.

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ORIGINAL RESEARCH

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Effect of Nasopharyngeal Irrigation on Early Eustachian Tube Functions in Patients Undergoing Adenoidectomy: A Clinical Prospective Study

Adenoidektomi Sırasındaki Nazofaringeal İrigasyon Yönteminin Erken Dönemde Östaki Tüp Fonksiyonlarına Etkisi: Prospektif Çalışma

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Abstract

Objective: The hypertrophic adenoid tissue can cause to eustachian tube dysfunction by mechanical or inflammatory effect both of which block the nasopharyngeal ostium of the eustachian tube. Adenoidectomy, with or without tonsillectomy, is the most common surgical procedure in children. In this study, we aimed to investigate whether nasopharyngeal irrigation for hemorrhage control in adenoidectomy patients has an effect on eustachian tube functions.

Method: Patients who underwent adenoidectomy for adenoid hypertrophy evaluated on both the preoperatively and on the postoperative first day by otomicroscopic examination and with tympanometry for eustachian tube functions. Patients were divided into two groups according to nasopharyngeal irrigation type after surgery. Group 1 was the transnasal pressure irrigation group; group 2 was transoral passive irrigation group. Tympanometry was used to measure pressure, volumetric, and compliance values to compare pre- and postoperative values.

Results: 40 patients were included in the study. There was no significant difference between the age and sex distributions of the patients. Volume and compliance values between the groups were similar before and after the surgery. The mean pressure values of the tympanometry parameters were highly significantly different for the right ear and moderately different for the left ear in group 1; were significantly different for the right ear and highly significantly different for the left ear in group 2. Postoperative

Öz

Amaç: Adenoid dokunun hipertrofisi, mekanik veya enflamatuvar süreçlerden dolayı östaki tüpünün nazofaringeal ağzını obstrükte ederek östaki disfonksiyonuna yol açmaktadır. Adenoidektomi, tonsillektomi ile birlikte çocuklarda yapılan en sık cerrahi prosedürdür. Bu çalışmada adenoidektomi yapılan hastalarda kanama kontrolü için yapılan nazofarenks irrigasyonunun östaki tüp fonksiyonlarına etkisinin olup olmadığını araştırmayı amaçladık.

Yöntem: Adenoid hipertrofisi nedeniyle opere edilen hastaların ameliyat öncesi ve ameliyat sonrası birinci gün otomikroskopik muayene ve timpanometri ile östaki tüp fonksiyonları değerlendirildi. Hastalar ameliyat sonrası nazofarenks irrigasyonuna göre iki gruba ayrıldı. Grup 1 hastalara transnazal basınçlı irrigasyon, grup 2 hastalara transoral pasif irrigasyon yapıldı. Timpanometri ile basınç, volüm, kompliyans değerleri ölçülerek ameliyat öncesi ve sonrası değerler karşılaştırıldı.

Bulgular: Çalışmaya 40 hasta dahil edildi. Hastaların yaş ve cinsiyet dağılımları arasında anlamlı bir fark bulunmadı. Gruplar arasında volüm ve kompliyans değerleri ameliyat öncesi ve sonrasında benzer bulundu. Timpanometri parametrelerinden basınç ortalama değerleri ameliyat öncesi-sonrası için grup 1'de sağ kulak için çok ileri düzeyde anlamlı olarak farklı ve sol kulak için sınırda anlamlı farklı iken, grup 2'de sağ kulak için ileri düzeyde anlamlı olarak farklı ve sol kulak için çok ileri düzeyde anlamlı olarak farklı idi. Ameliyat sonrası timpanometri tipleri grup 1'de

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Abstract

tympanometry types were seen as bilateral type C in 7 patients, as right side type C in 4 patients, as bilateral type B in 2 patients, as left side type C in 4 patients in group 1. However, in group 2, right side type B, left side type B and bilateral type C tympanogram were observed in 1 patient, 2 patients and 12 patients, respectively.

Conclusion: In this study, we observed that the nasopharyngeal irrigation to control bleeding after adenoidectomy had adverse effect on the eustachian tube functions but larger series of studies are needed to confirm this.

Keywords: Nasopharyngeal irrigation, adenoidectomy, tympanometry

Öz

7 hastada bilateral tip C, 4 hastada sağ tip C, 2 hastada bilateral tip B, 4 hastada sol tip C görüldü. Grup 2'de ameliyat sonrası 1 hastada sağ tip B, 2 hastada sol tip B, 12 hastada bilateral tip C timpanogram izlendi.

Sonuç: Bu çalışmada adenoidektomi sonrası kanama kontrolü için yapılan nazofarenks irrigasyonunun östaki tüp fonksiyonlarına etkisinin olumsuz yönde olduğunu gördük ancak bunun doğrulanması için daha geniş serili çalışmalara ihtiyaç vardır.

Anahtar kelimeler: Adenoidektomi, nazofarenks irrigasyonu, timpanometri

Introduction

Eustachian tube dysfunction results in all acute and chronic otologic pathologies to begin. Blustone ve Doyle defined the functions of the eustachian tube as ventilation, drainage and protection of the middle ear. Any disruption of these functions initiates middle ear pathologies (1). Clinical audiometry and tympanometry can be used for screening and diagnosis. However, tympanometry is the gold standard for assessing middle ear pressure, volume and tympanic membrane compliance. Treatment may vary depending on the duration and severity of the disease. Adenoid tissue was first described by Meyer in 1868 as a lymphoid tissue that is part of the Waldayer ring. Adenoid hypertrophy obstructs the upper respiratory tracts and causes complaints such as chronic nasal obstruction, mouth open sleep, snoring and recurrent sinusitis (2).

Traditional adenoidectomy using curette was first described in 1885 (3). Traditional adenoidectomy is usually performed using curette. Adenoidectomy usually is not associated with significant bleeding. In this technique hemostasis is achieved by pressure using postnasal packing and/or irrigation with saline solutions (4). Mathiasen et al. (5) demonstrated the safety and efficacy of a novel hemostatic sealant in children undergoing adenoidectomy. The nasopharynx is generally irrigated with saline after adenoidectomy for removal of blood and clots (4). This can be performed by two ways; by transnasal pressure irrigation, and by transoral passive irrigation. However it has been speculated that the eustachian tube function could be affected by the irrigation process.

In this study, we aimed to investigate the effect of nasopharyngeal irrigation methods for hemostasis on eustachian tube function in patients undergoing adenoidectomy and to eliminate this defect in the literature since there has been no studies on this subject so far.

Material and Methods

The study is performed in İstanbul Bağcılar Training and Research Hospital and the study protocol was carried out in accordance with the principles of the European Ethical Commetee, and an approval from ethical committee in the same centre was obtained before initiation of the study (No: 2019.01.1.01.121.r1.001). Preoperative otomicroscopic examination and tympanometry were performed to evaluate the eustachian tube functions indirectly. Patients with tympanic membrane adhesions, retraction or perforations; with congenital deformities such as cleft palate lips, with history of previous ear surgery, and tympanometry findings different from type A were excluded from the study. Under general anesthesia and supine position, adenoidectomy was performed by traditional curettage method in all patients. All of the operations were performed by the same experienced surgeon. Postoperative bleeding control was achieved with pressure and electro-cautery. The patients were divided into two groups randomly. In the first group, nasopharynx irrigation was performed transnasally by closing one of the nostrils with approximately 500 cc physiological saline at the end of the operation. The patients in the second group were filled with saline orally and then nasopharynx irrigation was performed by aspiration. Patients in both groups were assessed by otomicroscopic examination and tympanometry on postoperative day 1. Tympanometry was performed again on the 7th day of those who were not Type A.

Statistical Analysis

The minimum number of subjects required in each group was found to be 13 in order to make a significant difference

of 97.00 between the two groups. Type I Error=0.05, power of test (POWER) 0.80 Statistical analyzes were performed with the program MedCalc (MedCalc Software, Broekstraat, Mariakerke, Belgium). Normal distribution of continuous variables was investigated by Kolmogorov-Smirnov test. Gaussian distributions were shown as mean ± SD. The Student's t-test was used to compare the average values between the groups. The paired samples t-test was used in the comparison of the groups' average before and after surgery. Statistical significance was evaluated at the level of $p<0.05$ (two-tailed).

Results

40 patients were included in the study. Fifteen patients (37.5%) were female and 25 patients (62.5%) were male. Age of the patients ranged from 1 to 15 years and the mean age was 6.87 years. Mean age of the patients was 6.8 in transnasal irrigation group (group 1) with 13 males and 7 females; and that was 6.9 in transoral irrigation group (group 2) with 12 males and 8 females (Table 1).

Table 1: Demografic features of the patients

	Transnasal pressure irrigation, group 1 (n=20)	Transoral passive irrigation, group 2 (n=20)	p
Age (year)	6.8±2.9	6.9±3.0	=0.915
Male/Female (N/N)	13/7	12/8	=0.744

There was no significant difference between the age and sex distributions of the patients. Volume and compliance values between the groups were similar before and after the surgery.

The mean pressure values of the tympanometry parameters were highly significantly different for the right ear and moderately different for the left ear in group 1; were significantly different from the pressure parameters comparing group 2 (Table 2) The pressure levels in group. Postoperative tympanometry types were seen as bilateral type C in 7 patients, as right side type C in 4 patients, as bilateral type B in 2 patients, as left side type C in 4 patients in Group 1. However, in group 2, right side type B, left side type B and bilateral type C tympanogram were observed in 1 patient, 2 patients and 12 patients, respectively.

Discussion

The eustachian tube extends between the middle ear and the nasopharyngeal cavity and provides ventilation, drainage and protection of the middle ear. The most important function of the eustachian tube is the balance between the middle ear and atmospheric pressure (6). Adenoid tissue is localized in the lymphoepithelial tissue of the nasopharynx. The enlarged adenoid tissue results in nasopharyngeal obstruction. Adenoid hypertrophy is diagnosed by endoscopic nasopharyngoscopy and cephalometric radiography (7). Adenoidectomy is a

Table 2: Volume and compliance values between the groups before and after the surgery

			Preoperative	Postoperative	Sig after op.
Transnasal pressure irrigation, group 1	Right ear	Volume	0.56±0.11	0.61±0.19	=0.142
		Comp	0.46±0.22	0.47±0.23	=0.895
		Pressure	-67.1±90.0	-170.8±97.6	**<0.0001**
		Gradient	0.39±0.25	0.32±0.16	=0.284
	Left ear	Volume	0.57±0.10	0.54±0.15	=0.270
		Comp	0.52±0.20	0.47±0.21	=0.140
		Pressure	-74.7±72.6	-133.2±84.8	**=0.012**
		Gradient	0.34±0.17	0.29±0.13	=0.146
Transoral passive irrigation, group 2	Right ear	Volume	0.62±0.10	0.62±0.12	=0.963
		Comp	0.43±0.23	0.39±0.22	=0.256
		Pressure	-80.0±67.8	-132.8±88.0	=0.067
		Gradient	0.26±0.21	0.25±0.20	=0.766
	Left ear	Volume	0.59±0.17	0.58±0.15	=0.727
		Comp	0.43±0.23	0.40±0.23	=0.627
		Pressure	-58.5±63.1	-120.3±78.7	=0.056
		Gradient	0.34±0.20	0.31±0.19	=0.095
Significance between the groups	Right ear	Pressure	p=0.689	**p=0.001**	
	Left ear	Pressure	0.782	**p=0.03**	

frequently performed surgical procedure. In 1885, Wilhem Mayer first described adenoidectomy technique by curettage method that is still current today (3).

Ünlü et al. (8) reported 64 patients to have bilateral traumatic tube dysfunction, and 10 patients to have unilateral eustachian tube dysfunction preoperatively in a study of adenoidectomy and tonsillectomy performed 64 patients. In the tympanometric examination they performed on the seventh day postoperatively, they found that 2 patients had bilateral traumatic tube dysfunction. In our study, we found that all of the tympanometric examinations we performed on the seventh postoperative day were normal. Thompson and Crowthe reported at least one ear to have type C tympanogram in 34 of 63 patients with septoplasty (9). In our study we observed that 27 of 40 patients with adenoidectomy had type C tympanograms. Montaño-Velázque et al. (10) reported significant tympanometric abnormalities and decreased middle ear pressure in 20 patients aged between 4 to 9 years who underwent adenotonsillectomy. They thought that this abnormality was due to the deterioration of the coordination of the eustachian tube and nasopharyngeal muscles. In our study we observed that the middle ear pressure was falling and that resulted in type C tympanogram. Şereflican et al. (11) reported that edema induced eustachian tube dysfunction developed in 30 patients performed anterior nasal packing comparing to and improvement of eustachian tube function after took packing off postoperatively. Yılmaz et al. (12) reported that middle ear pressures continued to decrease in the nasal packing group rather than silicone nasal septal splint group after one week. In a study of 25 patients with adenotonsillectomy, type c tympanogram was reported in 74% on the first postoperative day (13). Hone et al. (14) reported that 39% of the patients had eustachian tube disfunction by tympanometric examination on first day after adenotonsillectomy. In our study, similar to these two studies, we found mean pressure values of the tympanometry parameters (type C tympanogram) were highly significantly different for the right ear and moderately different for the left ear in the transnasal pressure irrigation group; those were significantly different for the right ear and highly significantly different for the left ear in the transoral passive irrigation group.

Conclusion

In this study, we observed that the nasopharyngeal irrigation to control bleeding after adenoidectomy had adverse effect on the eustachian tube functions but wider series of studies are needed to confirm this effect.

Ethics

Ethics Committee Approval: The study is performed in İstanbul Bağcılar Training and Research Hospital and the study protocol was carried out in accordance with the principles of the European Ethical Commetee, and an approval from ethical committee in the same centre was obtained before initiation of the study (no: 2019.01.1.01.121.r1.001).

Informed Consent: It was obtained from all the patients parents.

Peer-review: Externally peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: Ş.Ö., A.T., C.Ö., Concept: Ş.Ö., H.D.T., A.B.C., M.F.O., Design: Ş.Ö., H.D.T., A.B.C., Data Collection or Processing: A.T., C.Ö., A.B.C., Analysis or Interpretation: Ş.Ö., H.D.T., A.B.C., M.F.O., Literature Search: Ş.Ö., H.D.T., A.B.C., Writing: Ş.Ö., A.B.C.

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ORIGINAL RESEARCH

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Different Therapeutic Approach to Idiopathic Normal Pressure Hydrocephalus: Lumboperitoneal Shunts Versus Ventriculoperitoneal Shunts

İdiyopatik Normal Basınçlı Hidrosefalide Farklı Tedavi Yaklaşımları: Lumboperitoneal Şantlar ya da Ventrikülöperitoneal Şantlar?

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Abstract

Objective: Idiopathic normal pressure hydrocehalus (iNPH) or Adam-Hakims syndrome is an uncommon but important cause of dementia, gait disturbance and bladder incontinence. Our aim was to compare the efficacy and complication rates of ventriculoperitoneal and lumboperitoneal shunts in the treatment of iNPH.

Method: This is a retrospective study conducted in 25 patients who were treated with either ventriculoperitoneal or lumboperitoneal shunts for iNPH between 2003 and 2012. Age, gender, clinical presentation, methods of treatment, and complication rates were recorded.

Results: Two of the twelve patients in lumboperitoneal shunt (LPS) group were revised; 1 distal catheter infection was replaced by a ventriculoperitoneal shunt (VPS). In addition, there was one revision for wound detachment (due to scratching by the patient). In VPS group (13 patients), one of the patients was complicated with subdural haemorrhage 3 months after the operation and extraction of shunt was carried out immediately. Moreover one dysfunctioning VPS was revised with a LPS after 3 years.

Conclusion: Our results indicate that when the patients are properly selected for shunt insertion, both LPSs and VPSs, are effective in controlling all the clinical manifestations of iNPH with positive results.

Keywords: Amnesia, imbalance, lumboperitoneal shunt, normal pressure hydrocephalus, urinary incontinence, ventriculoperitoneal shunts

Öz

Amaç: İdiyopatik normal basınçlı hidrosefali (iNPH) ya da Adam-Hakims sendromu demans, yürüme bozukluğu ve idrar inkontinansın önemli ve az bilinen bir nedenidir. Çalışmamızda iNPH tedavisinde kullanılan ventrikülöperitoneal ve lumboperitoneal şantların etkinliğini ve komplikasyon oranlarını karşılaştırdık.

Yöntem: Kliniğimizde 2003-2012 yılları arasında iNPH tanısıyla ventrikülöperitoneal veya lumboperitoneal şantla tedavi edilen 25 hasta geriye dönük olarak incelendi. Yaş, cinsiyet, klinik prezentasyon, tedavi yöntemi ve komplikasyon oranları kaydedildi.

Bulgular: Lumboperitoneal şant (LPS) grubunda iki revizyon yapıldı; 1 distal kateter enfeksiyonu ventrikülöperitoneal şantla (VPS) değiştirildi. Bir hasta yara yeri kaşıntısı sonucu yara yeri açıldı ve peritoneal uç revize edildi. VPS (13 hasta) grubunda, 1 hasta subdural hematom nedeniyle 3 ay sonra kanama boşaltıldıktan sonra revize edildi. Çalışmayan bir VPS de 3 yıl sonra LPS ile değiştirildi.

Sonuç: Şant, yerleştirilmesi için uygun hastalar seçilecek olursa, tipi ister VPS olsun ister LPS olsun iNPH nedeniyle oluşan klinik bulguları kontrol etmede etkin bir yöntemdir.

Anahtar kelimeler: Amnezi, dengesizlik, lumboperitoneal şant, normal basınçlı hidrosefali, üriner inkontinans, ventrikülöperitoneal şant

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Introduction

Normal pressure hydrocephalus (NPH) which has three main symptoms as gait disturbance, dementia and urinary incontinence, is a disorder of cerebrospinal fluid (CSF) absorption first described by Hakim and Adams in 1965 (1,2). The classical triad of NPH which can be primary, is named as idiopathic or it can be secondary caused by subarachnoid hemorrhage, trauma, meningitis, posterior fossa surgery, tumors causing meningitis carcinomatosa, Alzheimer patients, stenosis of aquaductus, insufficiency in arachnoid granulations (3). The incidence of idiopathic NPH (iNPH) is 5.5 per 100.000 and prevalence is 21.9 per 100.000 (4). Improved diagnostic and therapeutic methods have raised clinical success rates to a range of 70-90% and risk-benefit analysis have shown that surgery is superior to conservative treatment and natural course (5). Magnetic resonance imaging (MRI) provides important information for NPH by demonstrating a pulsatile flow void across the aquaduct and a hyperdynamic CSF flow on T2-weighted images (6). CSF drainage by lumbar puncture or extended lumbar drainage, CSF pressure dynamic measurements are confirmatory tests (7-9). The standard treatment of NPH is ventriculoperitoneal shunting (VPS) that has significant morbidity (30%) and re-operation rates due to subdural hematoma or hygroma, infection, obstruction, etc. (10,11). Lumboperitoneal shunt (LPS) is an alternative method to VPS for CSF diversion in these patients.

We have retrospectively analyzed our patients with iNPH for effectiveness and outcome of LPS versus VPS.

Material and Methods

We retrospectively analyzed the medical records of patients undergoing LPS and VPS placement for idiopathic NPH by the same author (E.Ç) from 2003 to 2012. Secondary NPH cases were excluded. Ethical committee approval and written consent from the patients were obtained.

The diagnosis were confirmed by clinical findings (Table 1), CSF dynamic flow MRI demonstrating increased flow at the aquaduct, and positive CSF tap test. Positive CSF tap test was meant that gait, balance, incontinence and cognitive symptoms get better after daily lumbar puncture (30-45 mL CSF drainage in every puncture) for three days.

In our clinic the standard surgical technique was placement of VPS (Medtronic-CSF Flow-Control Valve, Integra Orbis Sigma Valve, Medtronic Delta valve) from Kocher point or Keen points until 2011, and LPS (Miethke LPS) after 2011 due to availability of the shunt system in our hospital.

There were 34 patients with NPH, but 9 of them were excluded because they were secondary NPH (sNPH) due to subarachnoid hemorrhage, trauma, tumor, or infection. The rest of the 25 patients were diagnosed as iNPH. The 25 patients were divided into two groups according to the type of CSF shunt used for their treatment (VPS group and LPS group).

Statistical Analysis

IBM SPSS statistics 22.0 software was used for statistical evaluation of the data collected in the study. While comparing data with normal range between groups, Student's t-test was used, and comparing data without normal range, Mann-Whitney U test was used. Qualitative data was compared by Fisher's exact test or chi-square test according to the subject number. P values <0.05 were accepted as significant.

Results

Of the 25 iNPH patients, 10 were female and 15 were male. The mean age was 71.52+8.48 years (range 56-83 years). There were 13 patients in VPS group, and 12 patients in LPS group.

The age, gender, symptom duration, rate of presence of concomitant systemic diseases and complication rates were not significantly different between two groups (p>0.05).

In 13 patients treated with VPS, 2 patients had complications. In one patient, there was with subdural hematoma three months after surgery. The VPS was removed and the hematoma was evacuated surgically. On follow-up of this patient, hydrocephalus progressed again and a new VPS was inserted. In another patient, a LPS was placed due to VPS dysfunction 2 years later. On long-term follow-up (mean 3.2 years with range 1-5 years) in VPS group, 2 patients died because of unrelated causes. The rest of the patients had improvement in gait disturbance

Table 1: The demographic data and outcome of the two groups

	VPS	LPS	p
Age	69.6±8.3	75.5±8.5	0.271
Gender (M/F)	9/4	6/6	0.428
Symptom duration (year)	1.2±0.7	2.1±2.9	0.852
Concomitant disease (n of patients)	10	9	1
Ex	2	2	1
Revision	2	2	1
Complication	2	2	1

M: Male, F: Female, VPS: Ventriculoperitoneal shunt, LPS: Lumboperitoneal shunt

and memory deficits, and there was a complaint about urinary incontinence only in one patient.

Two of twelve patients treated with LP shunts has complications (16.6%). In one patient, the LPS was replaced with a VPS for wound infection 7 days after first shunt operation. This patient died because of aspiration pneumonia 7 months later. In another patient with LPS, shunt revision was performed because of opening of the abdominal wound, and the peritoneal catheter was placed with another abdominal incision. In this group, 2 patients died owing to unrelated causes. In 10 patients, only two patients had residual symptoms at long-term follow-up (2.8 years, range 1 to 5 years). In one patient, she still had difficulty while steady gait possibly due to lumbar degenerative spondylosis, and in another patient, there was still complaint on memory function (Table 1).

Discussion

The diagnosis of iNPH is made according to clinical triad of gait disturbance, cognitive impairment and urinary incontinence with ventricular enlargement in the absence of apparent cortical atrophy. The treatment of iNPH is preferably surgical. Natural history of iNPH is unclear, still there is a concensus that outcome is worse without surgery (12,13). The main shunt procedures are VPS and LPS for iNPH. VPS are usually chosen according to the surgeon's experience. However, as an advantage, LPS does not need to access to ventricular cavity within the brain tissue, which has risk of brain and cortical venous injury, and hemorrhage. Besides, LPS is associated with lower infection rates than VPS (14,15).

In the early surgical series of shunt insertion, the clinical improvement and efficacy of the procedure were reported to be low because of high complication rates (11,12). Current studies have stated that VPS insertion in iNPH have good outcome in 71% and has low mortality (1%), and low revision and complication rates (16% and 10.4% respectively) (16). Moreover, with the improvement of surgical technique and shunt technology, the stated subdural hemorrhage (SDH), intracerebral hemorrhage, and seizure rates have also declined (16).

Pujari et al. (17) have studied the long term results of shunt patients with a mean follow up of 5.9+2.5 years. Gait improved 83% at 3 years and 87% in 7 years, cognition improved %84 and 86% and urinary incontinence improved 84% and 80% respectively. However 53% required shunt revisions and 74% of them improved after revision surgery. In our series, which included 25 patients, 13 patients had VPS and 12 patients had LPS. In VPS group, gait, cognition and urinary incontinence improvement rate was 100%, 100% and 92% respectively on last follow-up. In LPS group, gait, cognition and urinary incontinence improvement rate was 90%, 90% and 100% respectively. In a meta-analysis of 44 articles by Hebb et al. (11) it was reported that the pooled mean rate of shunt complication (including death, infection, seizures, shunt malfunction, SDH or effusion) was 38%. In our series, there was no mortality, and complication rate was 16% (2 patients from VPS group and 2 patients from LPS group), and revision rate was 16% (2 patients from VPS group and 2 patients from LPS group). We did not find a difference between groups for mortality, complication or revision rates.

McGirt et al. (18) demonstrated that gait disturbance as the primary symptom and short duration of symptoms are indicators for good outcome. In our series, there were residual complaints in three patients (urinary incontinence in one, memory function in one, and gait disturbance in one). Other patients had a very good improvement for all three symptoms.

Conclusion

In conclusion, we state that the two CSF diversion methods, both VP and LP shunts, are safe and effective for treatment of iNPH. Our study is limited due to the small number of patients and variability in shunt devices. Controlled randomized prospective trials in larger groups are required to maintain high rank evidence of shunt effectiveness in iNPH management.

Ethics

Ethics Committee Approval: Retrospective study.

Informed Consent: Retrospective study.

Peer-review: External and internal peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: E.C., A.Ç., Concept: A.Ç., Design: A.Ç., Data Collection or Processing: M.İ., A.Ç., Analysis or Interpretation: A.Ç., Literature Search: A.Ç.,Writing: M.İ., A.Ç.

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Retrospective Analysis of Six Primary Cutaneous T-cell Lymphoma Cases in the Light of Recent Advancements

Altı Primer Kütanöz T-Hücreli Lenfoma Olgusunun Yeni Gelişmeler Işığında Retrospektif Analizi

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Abstract

Objective: Primary cutaneous lymphomas (PCLs) are lymphoproliferative malignancies of skin. Although they have been confine to mycosis fungoides (MF) and Sezary syndrome over the years, the concept of PCL quite changed with the describing of new types in recent years. In our study, re-evaluation of diagnostic properties of our previously diagnosed six PCL cases was aimed, in the light of these advancements.

Method: The diagnostic features and progression of six PCL cases, which had been previously diagnosed and followed in the Dermatology clinic of İstanbul Şişli Etfal Training and Research Hospital, were retrospectively re-evaluated in the light of new advancements. For this purpose, besides their medical histories, clinical, laboratory and histopathologic findings were reviewed. In this manner, their diagnoses and clinical progressions were re-interpreted.

Results: Case 1 had been diagnosed with "Sezary syndrome" and re-evaluation confirmed the diagnosis. Case 2 and 3 had been diagnosed with "lymphomatoid papulosis" and "high-grade medium/large-T-cell lymphoma", respectively. After re-evaluation, 2nd case was thought to be more likely a high-grade CD30 (+) pleomorphic large-cell lymphoma, and 3. case a "CD30 (-) high-grade medium/large cell pleomorphic T-cell PCL". Case 4 had been diagnosed with "diffuse high grade pleomorphic mixed T and B-cell PCL". In the re-evaluation, lesions were thought to be an advanced "CD30 (+) high-grade pleomorphic large T-cell PCL that co-infiltrated with reactive B-cells". Case 5 and case 6 had been diagnosed with "MF", and "MF + follicular mucinosis (FM)", respectively. When re-evaluated, 5th case was thought to be more likely an "MF emerged from an ulceronecrotic pityriasis lichenoides et varioliformis acuta", whereas the previous diagnosis of 6th case was confirmed again.

Öz

Amaç: Primer kütanöz lenfomalar (PKL) derinin lenfoproliferatif maligniteleridir. Yıllarca mikozis fungoides (MF) ve Sezary sendromu ile sınırlı kalmış olan PKL kavramı, son yıllarda yeni tiplerin tanımlanması ile oldukça değişmiştir. Çalışmamızda, daha önce kliniğimizde tanı almış altı PKL olgusunun tanısal özelliklerinin, bu gelişmeler ışığında yeniden değerlendirmesi amaçlandı.

Yöntem: İstanbul Şişli Etfal Eğitim ve Araştırma Hastanesi Dermatoloji Kliniği'nde önceki yıllarda PKL tanısı konularak takip edilmiş, altı PKL olgusunun tanısal özellikleri ve progresyonları yeni gelişmeler ışığında geriye dönük olarak değerlendirildi. Bu amaçla, olguların anamnezleri, klinik, laboratuvar ve histopatolojik bulguları tekrar gözden geçirildi. Böylelikle, hastaların önceden almış oldukları tanıları ve klinik progresyonları yeniden irdelendi.

Bulgular: Olgu 1 tipik bir "Sezary sendromu" olarak tanı almıştı ve bu tanı tekrar değerlendirmede teyit edildi. İkinci ve 3. olgular sırasıyla "lenfomatoid papülozis" ve "ileri-evre orta/büyük hücreli T-hücreli PKL" olarak tanı almışlardı. Yeniden değerlendirildiklerinde, 2.'nin daha çok ileri-evre bir "CD (+) pleomorfik büyük hücreli PCL", 3.'nün ise ileri-evre bir "orta/büyük hücreli CD (-) pleomorfik T-hücreli PKL" olabileceği düşünüldü. Dördüncü olgu "diffüz ileri evre pleomorfik mikst T ve B-hücreli PKL" olarak tanı almıştı. Tekrar değerlendirildiğinde ise lezyonların daha çok ileri-evre "reaktif B hücreleriyle ko-infiltre edilmiş, CD30 (+) pleomorfik büyük-hücreli T-hücreli PKL" ile uyumlu olduğu düşünüldü. Beşinci ve 6. olgular, sırasıyla "MF" ve "MF (+) folliküler musinozis (FM)" olarak tanı almışlardı. Tekrar değerlendirildiklerinde, 5. olgu "ülseronekrotik pitriyazis likenoides et varioliformis akuta üzerinden gelişmiş bir MF" olarak düşünülürken, 6. olgunun önceki tanısı teyit edildi.

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Abstract

Conclusion: Diagnosis of a PCL with only clinical features or cellular morphology may lead a misdiagnosis. Patients should be evaluated with a multidisciplinary approach and methods, including immunophenotypic examination, DNA gene-rearrangement and, even electron microscope. It is very important to establish a close correlation between clinical findings and these examination findings to make correct diagnosis.

Keywords: Skin, lymphoma, malignant, non-Hodgkin, diagnosis, prognosis, analysis

Öz

Sonuç: PKL'lerde, tanının sadece klinik özellikler ya da hücre morfolojisine göre konulması yanıltıcı sonuçlar doğurabilir. Olgular, immünofenotipik inceleme, DNA gen yeniden düzenlenmesi ve hatta elektronmikroskopik yöntemlerin birlikte kullanımıyla, multidisipliner bir yaklaşımla değerlendirilmelidir. Klinik bulgular ve bu inceleme sonuçları arasında korelasyonun sağlanması doğru tanı için çok önemlidir.

Anahtar kelimeler: Deri, lenfoma, malignite, Hodgkin dışı, tanı, prognoz, analiz

Introduction

Lymphomas are main malignancies of lymphoreticular tissue. They are classically divided as Hodgkin and non-Hodgkin lymphomas (NHL). They can be originated from nodal, or extradodal tissues (skin/mucosa) (1). Skin is the second most frequent involvement of NHLs after gastrointestinal tissue, with an incidence of 1/100.000 (2). PCLs are majority of extradonal NHL which are stemmed from skin-resident lymphocytes. They are divided by the main tumor cell population into various sub-groups, and may exhibit different clinical, histological, immunophenotypical and prognostic properties (1,3). The main groups are T-cell primary cutaneous lymphomas (PCLs), B-cell PCLs, and non-clasified or provisional types, with a dominancy of the first. PCLs have been confine to mycosis fungoides (MF) and Sezary syndrome (SS) over the years. However, many new types were described owing to the recent diagnostic methods such as immunohistochemistry, T or B-cell DNA gene-rearrangement or monoclonal antibodies, and the concept of PCL has gained a new dimension with these advancements (1,4). The main characteristic features of a PCL are; having only/or predominantly skin involvement, presence of a compatibility between the epidermotropism and cellular maturity, progression from local to disseminated, and progression of lymphocyte proliferation from slow (cerebriform) to rapid growth phase consistent with the loss of epidermotropism (5). On the other hand, some lymphoproliferative conditions which have previously been described as benign lymphoproliferative conditions such as "large plaque parapsoriasis", "lymphomatoid papulosis (LP)", and "follicular mucinosis (FM)" were recently described as premalignant conditions or as "a real PCL" (6-8). Contrarily, there are some misdiagnosed "pseudolyphoma" cases in literature, who were previously diagnosed as real PCLs (9). The mentioned changes in the concept of PCL, and presence of previously misdiagnosed cases in literature, encouraged us to perform this study to understand how accurately our patients were diagnosed previously.

Material and Methods

The study was conducted as a retrospective study, and was performed on previously recorded data of six PCL cases, who had been diagnosed and followed in İstanbul Şişli Etfal Training and Research Hospital, Clinic of Dermatology. After an ethical approval was obtained from local ethics committee, an informed consent was obtained from each patient, or his/her legal guardian for dead patients, to use and report their medical records for academic purposes. Study population consisted of 2 females and 4 males, between the ages of 35 and 65 years. Their recorded indivudial histories, systemic and clinical examination findings, routine hemogram biochemical/microbiological analyses including treponema pallidum haemagglutination, venereal disease research laboratory, anti-HIV values, chest radiography, abdominopelvic ultrasonography and thoracoabdominal tomography findings in all patients, and available photographs of their lesions were checked and interpreted again. Histopathological slayds of skin and lymph node biopsies and immunohistochemically-stained slayds of skin biopsies were obtained from the archive of our pathology department. Histopathologic re-examinations of skin biopsies were made for all patients. Immunohistochemical re-examination of skin biopsies were made in case 4 and case 6, and histopathologic re-examinations of lymph node biopsies were made in case 1, 3 and case 6, because these examinations had been performed in only these patients. Besides their previous diagnoses were reviewed, the patients' responses to administrated chemotherapies, and clinical courses of them were re-evaluated. In their medical courses, some of them had been hospitalized and followed in some different centers in certain time intervals.

Regarding data was requested from these clinics, and was included in this study to be able to fully interpret all the courses of patients. After the entire records of the patients were collected, they were re-evaluated with the available data. Non-pathological, and non-related findings with PCL were excluded from the interpretation to avoid data crowds.

Results

A total of 6 PCL cases who consisted of 2 women and 4 men, between the ages of 35 and 65 years were evaluated. Mean age was 49. Clinical, laboratory and histological features of patients and their courses are below;

Case 1

A 49-year-old-man was admitted to us with a complaint of extensive itchy erythema covering the entire skin, which first started 1.5 years ago. In his earlier admittions he had been diagnosed with "idiopathic erythroderma", and "generalized eczema". In the dermatological/systemic examinations, diffuse brownish-erythema, desquamation, edematous infiltration, alopecia, facies leonine, subungual hyperkeratosis, palmoplantar rhagadiform fissures, and axillar/inguinal lympadenomegaly (LAMs), were detected. In the laboratory examinations, a high leukocytosis (13.4000), high blood sedimentation rate (40 mm/h), high lactate dehydrogenase (LDH) (698 Ü/L), and peripheral large lymphocytes with cerebriform nuclei in the rate of 40% were detected. Skin biopsy showed epidermal spongiosis and mononuclear focal lymphocytic infiltration, and linear infiltration of lymphocytes in upper reticular dermis. Nodal biopsy was consistent with dermatopathic lymphadenopathy (DPL). With the findings he was diagnosed with "SS". All the clinical and laboratory findings disappeared within 6.5 months with prednisolone + chlorambucil (P + CHB) chemotherapy. He was still in cure in the 15th month.

Case 2

A 59-year-old-man was admitted to us with papulo-nodules on the itchy desquamative erythematous patches on the face and extremities, which were diagnosed with "LP" 2 years ago. In the dermatological/systemic examinations, 1-2 cm in diameters, erythematous multiple papule, plaque and nodules, high blood sedimentation rate (40 mm/h), high LDH (620U/L) were detected. Multiple skin biopsies showed similar features, which were epidermal hiperkeratosis/acanthosis, dermal patchy infiltration consisting of eosinophilic, histiocyte-like, big pleomorphic atypical cells, eosinophils, histiocytes, neutrophils and extravazed erythrocytes. Lesions were diagnosed as "LP" again, and he was began to be treated with cetirizine and topical corticosteroid. However, the lesions increased in number and size. Second skin biopsy was consistent with a "tumoral stage of MF", which showed diffuse dermal atypical lymphocytic infiltration. He was began to be treated with CHOP therapy for 5 session, however was lost due to cardiovascular insufficiency.

Case 3

A 59-year-old-man was admitted to us with itchy desquamation in his scalp, face and trunk, for 25 years. Two years ago he had been diagnosed with "early-stage-psoriasis (Ps)". In the dermatological/systemic examinations, erythemato-squamous diffuse eruption and crusted plaques in whole skin, candle grease and Auspitz signs, ungual ridging, onycholysis, subungual hyperkeratosis, high blood sedimentation rate (55 mm/hg), and slight anemia were detected. Skin biopsy showed prominent epidermal parakeratosis, elongation of rete ridges, mononuclear epidermal microabcesses, spongiosis and perivascular mixed inflamatory infiltration in upper dermis, which were consistent with "eythrodermic Ps". He was began to be treated with topical corticosteroids and oral antihistamine. However, multiple nodular lesions on the face and trunk, and a severe plantar pustulosis developed within one month. Skin biopsy showed epidermal polymorphic microabcesses, and meadium/large in size, high-mitotic atypical lymphocytes in whole dermis, which were consistent with "high-grade medium/large-T-cell PCL". Detected right inguinal lymphadenomegaly also showed high-grade lymphoma features. Although he was treated with P + CHB combination for 3 session, and lesions were significantly regressed, the patient was lost from cardiac insufficiency.

Case 4

A 65-year-old-woman was admitted to us with itchy skin lesions arising from a diffuse erythema, which firstly started 4 years ago. In the dermatological/systemic examinations, 0.5-7 cm in diameters, violaceous and desquamative multiple lenticular papules/nodules and on the face, hands, and lower extremities, and bilaterally axillar LAMs were detected. Blood sedimentation rate was 92 mm/h. Skin biopsy showed atypical immature/pleomorphic lymphocyte infiltration showing intense mitosis in the epidermis of papules, whereas throughout the whole skin in the nodules. All types of lesions were equally stained

with CD45RO and CD20 immunohistochemistries. With the findings the patient was diagnosed with "diffuse high-grade pleomorphic mixed T and B-cell PCL". Because a slight regression was obtained in the lesions with P + CHB chemoterapy, the patient was recommended for CHOP therapy in the third month, but she did not accept it. Ten months later the lesions increased further.

Case 5

A 58-year-old woman was admitted to us with a complaint of wounds in her scalp and whole skin, which had begun since 2 years, as recurrent lenticular small squamous papules. They had previously been diagnosed as "chronic superficial dermatitis" and "MF plaque stage". In the dermatological, histologic and systemic examinations, 0.5-6 cm in diameters, multiple, violaceous-brownish, painful, hemorrhagic and exudative plaques and ulcers covered by white and brown/black necrotic crusts, epidermal necrosis, lymphocytic exocytosis, epidermal atypical cells showing big and hyperchromatic nuclei, spinal dyskeratosis, basal hydrophic degeneration, extensive dermal perivascular lymphoplasmocytic infiltration, keratoconjunctivitis sicca, hematuria and axillar LAPs were detected. Blood sedimentation rate was 115 mm/h. There was a slight hypoalbuminemia (3.1 gr/dL) and high fever (38 °C). She was diagnosed with "MF" and began to be treated with P + CHB chemoterapy. Because lesions continued to progress, therapy was changed to CHOP therapy. During this period she was lost due to respiratory insufficiency and hypotensive shock associated with high-fever, abdominal pain, myalgia, and hematuria.

Case 6

A 35-year-old man was admitted to us with a complaint of itchy wounds. They had been begun as only one 5-6 cm plaque, and then increased in number within 5 years. In the dermatological/systemic examinations; multiple (higher than 10% of body surface area), 2-10 cm in diameters, red-violaceous, scaling patch/plaques, and disseminated follicular papules in whole skin, multiple cervical and inguinal LAMs, and 2% atypical cerebriform lymphocytes in the peripheral blood were detected. Skin biopsy showed acanthosis, hyperkeratosis, parakeratosis, light spongiosis, focal infiltration of atypical lymphocytes in epidermis, whereas a perivascular patchy atypical lymphocyte infiltration in the papillar/upper reticular dermis, and perifollicular mucinous degeneration in the lower reticular dermis. Lesions were positive for CD45RO, and negative for CD20 and CD 30 immunohistochemistries, and were diagnosed with "MF + FM" Nodal biopsy was considered in consistent with MF. Clinical stage was considered as IIA (T2N2M0B0). He was administered two sessions of CHOP chemotherapy, but did not respond. The lesions began to be more pruritic.

Discussion

SS is erythrodermic and leukemic variant of MF. There is three stage of it such as presezary, sezary and T-cell leukemia. In the first stage, an erythrodermia showing chronic dermatitis histopathology is seen. The number of peripheral atypical lymphocytes is under 1000/mm3. It can be difficult to diagnose during this period (1,3,4) The findings of our first case in his first admittion, were complied with presezary-stage. In the SS stage, skin thickness increases and diffuse melanoerythrodermia, desquamation, edematous infiltration, alopecia, facies leonine, subungual hyperkeratosis, palmoplantar fissures and severe prruritus occur. Histopathology is variable. Epidermotropism may change, and usually perivascular band-like mononuclear lymphocytic infiltration occur. Nodal biopsy is usually complied with DPL, leucocytosis is between 10.000 and 30.000, and the percent of atypical peripheral lymphocytes is 15-30% (it is usually higher than 50% in leukemic-stage). LDH shows degree of leukemic activation and prognosis (3,4,10). Low-dose P + CH therapy is usually leads long-term remissions in this stage (11). All findings and course of our 1. case were consistent with typical SS-stage. On the other hand, LP is rithmic, paradoxal papular/small-nodular or papulonecrotic eruption, which shows benign clinical course but malignant histopathology, and may develop before or after MF, or accompany it (4,12). Lesions' histology may be various. Patchy and wedge-style perivascular lymphocytes, bigger-pleomorphic cells occur in type-A, whereas they are smaller and similar to MF cells in type-B (4,13). However, similar views may be seen in a high-grade CD30 (+) large-cell PCL, or CD30 (-) pleomorphic PCL (4,12,14). For these reasons, although the clinicopathological findings of our 2th case had thought to be consecutively developed patchy-MF, LP-plaque (type-A) and finally tumoral LP or MF, the exact diagnosis has remained in suspense because an immunostaining had not been performed. In the re-evaluation, we thought that 2th case was more likely to be a high-grade CD30 (+) pleomorphic large-cell PCL, due to its histologic similarities and aggressive course. Lesions of our 3th case had begun as Ps-like eruption. Early stages of both Ps and T-cell-PCLs may share common clinicopathological findings such as erythemato-squamous eruption, parakeratosis, acanthosis,

slight spongiosis, perivascular mononuclear infiltration and slight exocytosis (15,16). On the other hand, CD30 (-) high-grade medium/large cell pleomorphic T-cell PCLs are recently described lymphomas with a poor prognosis. Moreover, a palmoplantar-MF may show similar features to Ps, such as hyperkeratosis, verrucous or pustular-Ps like hyperplasia. Wakelin et al. (17) reported a CD30 (-) high-grade medium/large cell pleomorphic T-cell PCL arised from pre-existing palmoplantar Ps. These lymphomas needs for radiotherapy or polychemotheapy (4,18). Furthermore, few reports regarding a PCL development on pre-existed chronic dermatoses have been reported. However, no any scientific evidence has been reported that whether such cases reflect a malignant transformation, or de-nova formation (19). After re-eavulation, he was thought to be more likely a "high-grade CD30 (-)medium/large cell pleomorphic T-cell PCL". Although the available findings of our case strongly supported aforementioned literature, we could not be sure of our exact diagnosis due to the lack of immunostaining. Our 4th case had been diagnosed with a "diffuse high grade mixed T and B-cell PCL". Although T and B-cell PCLs cannot exactly be distinguished without immunostaining, some indicators can help to diagnosis. T-cell PCLs are more symmetric, isolated or unified papul/plaque/nodules which are usually covered by squames/crusts, and show stage-compatible histopathology, whereas B-cell PCLs are usually smooth-surfaced, figured nodul/plaques which show follicular or full-thickness histopathologic features, early bone marrow involvement, and faster progress (20). Our different lesions equally stained for T and B-cells. These condition can be explain with the concepts of "composite lymphoma (togetherness of two lymphoma originating two different lymphocyte types)" (20,21), or "co-infiltration [togetherness of a single-type lymphocyte originated lymphoma (T or B), and accompanying benign reactive infiltration with other type lymphocytes]" (21). Moreover, no any staining for CD30 had been performed for the lesions of case 4, because there was no any PCL-classification including pleomorphic ones when she had been first diagnosed. When the case was re-evaluated together with all the findings and lesions' moderate response to P + CHB chemotherapy, the lesions were thought to be more likely an advanced "CD30 (+) high-grade pleomorphic large T-cell PCL, that co-infiltrated with reactive benign B-cells". Lesions of 5th case had begun as non prutitic, chronic, recurrent, pink to red, lenticular, squamous papules, which had not been proved histologically. Later, they were quickly transformed ulceronecrotic plaques. Histopathology showed epidermal/dermal aytpical pleomorphic lymphocytes, accompanying severe ulceronecrotic/vasculitic changes, and basal vacuolar degeneration, which latter ones were not compatible with a classical MF, but closely compatible with an ulceronecrotic pityriasis lichenoides et varioliformis acuta (PLEVA). PLEVA is a small-papulonecrotic and hemorrhagic, chronic skin eruption, which can rarely progress to large plaques. Sometimes high-fever, myalgia, astenia, weakness and hemorrhagic crusted ulcers may accompany it (22). Progression of a PLEVA to PCL is not usual condition. However, Forstan et al. (23) have reported that their two patients and other some PCL cases, which their lesions developed from pre-existed PLEVA lesions. Moreover, T-cell infiltration or clonality rarely can occure in PLEVA, so it was hypothesized that a PCL may develop from PLEVA lesions, when elimination capacity of immune system is exceeded (23,24). Thus, it was thought that development of these lesions was not consistent with just a conventional-MF, but was with an "MF emerged from an ulceronecrotic PLEVA", both clinically and histopathologically. Also, the reason of patient's death was thought more likely caused by intraabdominal hemorrhagies due to progressive vasculitic changes. Our 6th case had been diagnosed with "MF + FM". FM is characterized pruritic, follicular, prominent papules, which is caused by perifollicular mucinous degeneration. It is considered as a poor prognostic factor when it accompany Hodgkin lymphomas (25). Clinically, the lesions were compatible with patch/plaque stages of MF + disseminated FM. Skin involvement was higher than 10%, and peripheral atypical lymphoctes were lower than 5%. Lesions were positively stained for CD45RO, but not for CD20 and 30. Although nodal biopsy was complied with DPL, they were considered as involved in lymphoma, because the presence of multiple palpable nodes and prominent germinal center enlargements. Although the lesions were considered in low-stage of MF [IIA (T2N2M0B0)] according to "TNMB classification" for MF and SS (26), their unresponsiveness to administered CHOP sessions was thought to be related with accompanied FM. When the lesions were re-eavulated, previous diagnoses of them were confirmed. Additionally, it was thought that an accompanying FM may lead worse prognosis in MF cases.

Conclusions

PCLs are cutaneous malignancies composed of various subtypes, and there is no homogenization in these tumors. Each PCL case may have a distinctive attitude. Diagnosis of a PCL with only clinical or histopathologic findings may lead a misdiagnosis. Therefore, PCL cases should

be evaluated with a multidisciplinary approach, and, immunophenotyping, DNA gene-rearrangement, and even electronmicroscopy. Establishing close correlation between the clinical and other examination findings is very important to make correct diagnosis.

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Ethics

Ethics Committee Approval: The study was approved by the İstanbul Şişli Etfal Training and Research Hospital Local Ethics Committee (approval no: ŞEH/96-49/017).

Informed Consent: A written informed consent was obtained from each patient or their legal guardian.

Peer-review: Externally peer-reviewed.

Conflict of Interest: No conflict of interest was declared by the authors.

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