



HER2 Status in Breast Carcinoma

Emel Ebru Pala et al.; İzmir, Turkey

Breast Cancer and Socioeconomic Factors

Abdurahman Kuzhan et al.; Gaziantep, İstanbul, Turkey

**Evaluation of Breast Cancer Cases** 

Muhabbet Koralp Durdiyeva et al.; Kuzey Kıbrıs, TC

Barriers On Breast Cancer Early Detection

Yasemin Erkal Aksoy et al.; Konya, İzmir, Turkey

Effectiveness of the Breast Cancer Training

Ayla Açıkgöz et al.; İzmir, Turkey

Editor-in Chief

Vahit ÖZMEN, Turkey

International Editor

Atilla SORAN, USA



The Journal of Breast Health is the official journal of the TURKISH FEDERATION OF BREAST DISEASES ASSOCIATIONS.



### **MHDF**

OWNER AND
RESPONSIBLE MANAGER
Dr. Vahit Özmen
On Behalf of the TURKISH FEDERATION
OF BREAST DISEASES ASSOCIATIONS.

### Contact

Department of General Surgery, istanbul University istanbul Medical Faculty, C Service Çapa / istanbul Phone&Fax: + 90 212 534 02 10

### //AVES

Publisher **İbrahim KARA** 

Publication Director Ali SAHİN

Deputy Publication Directors Gökhan ÇİMEN Ayşegül BOYALI

Publication Coordinators Merve AKDEMİR SAĞLIK Esra GÖRGÜLÜ Ebru MUTLU Betül ÇİMEN

### Editor

### Vahit Özmen

İstanbul University İstanbul Medical Faculty, İstanbul, Turkey

### International Editor

### Atilla Soran

University of Pittsburgh, Magee-Womens Hospital, Pittsburgh, PA, USA

### Associate Editors

### Nilüfer Güler

Hacettepe Univ<mark>ersity Faculty of Me</mark>dicine, Ankara, Turkey

### Ferah Yıldız

Hacettepe University Faculty of Medicine, Ankara, Turkey

### Gürsel Soybir

Namık Kemal University Faculty of Medicine, Tekirdağ, Turkey

### Hasan Besim

Yakın Doğu University Faculty of Medicine, Nicosia, TRNC

### **Assistant Editors**

### Ayfer Kamalı Polat

Ondokuz Mayıs University Faculty of Medicine, Samsun, Turkey

### Bülent Ünal

İnönü University Faculty of Medicine, Malatya, Turkey

### Biostatistics Editor

### Birol Topçu

Namık Kemal University Faculty of Medicine, Tekirdağ, Turkey

### Medical English Advisor

### Didem Öncel Yakar

The Journal of Breast Health is indexed in Index Copernicus, EBSCO, TÜBİTAK ULAKBİM Medical Databases, Türk Medline and Turkish Citation Index databases.

Finance Coordinator

Veysel KARA

Project Coordinators Hakan ERTEN Zeynep YAKIŞIRER

Project Assistant Muhammed SAYIN

Graphics Department Ünal ÖZER Neslihan YAMAN Merve KURT Contact

Address: Büyükdere Cad. No: 105/9 34394

Mecidiyeköy, Şişli, İstanbul, Turkey

Phone :+90 212 217 17 00 Fax :+90 212 217 22 92 E-mail :info@avesyayincilik.com

Yayın Türü : Yerel Süreli Basım Tarihi: Ocak 2015 Basım Yeri: ADA Ofset Matbaacılık Tic. Ltd. Şti., Litros Yolu 2. Matbaacılar S. E Blok No: (ZE2) 1. Kat Topkapı, İstanbul Telefon : +90 212 567 12 42

### National Editorial Board

### Bülent Alıç

Ankara University Faculty of Medicine, Ankara, Turkey

### Varol Çelik

İstanbul University Cerrahpaşa Faculty of Medicine, İstanbul, Turkey

### Serdar Özbaş

Ankara Güven Hospital, Ankara, Turkey

### Füsun Taşkın

Adnan Menderes University Faculty of Medicine, Aydın, Turkey

### Neslihan Cabioğlu

istanbul University istanbul Faculty of Medicine, istanbul, Turkey

### Yeşim Eralp

istanbul University istanbul Faculty of Medicine, istanbul, Turkey

### Zerrin Calay

İstanbul University Cerrahpaşa Faculty of Medicine, İstanbul, Turkey

### Ertuğrul Gazioğlu

İstanbul University Cerrahpaşa Faculty of Medicine, İstanbul, Turkey

### Kemal Atahan

İzmir Katip Çelebi University Atatürk Education and Research Hospital, İzmir, Turkey

### Ercüment Tarcan

İzmir Katip Çelebi University Atatürk Education and Research Hospital, İzmir, Turkey

### International Editorial Board

(Co-Editor for International Review Board: Atilla Soran MD, Pitssburgh, USA)

### Gretchen Ahrendt

University of Pittsburgh School of Medicine, Pittsburgh, PA, USA

### Stanley N C Anyanwu

Nnamdi Azikiwe University, Teaching Hospital, Nnewi, Nigeria

### Tayanç Öncel

Mamer Surgical Center, Bursa, Turkey

### Türkkan Evrensel

Uludağ University, Faculty of Medicine, Bursa, Turkey

### Berna Öksüzoğlu

Dr. Abdur<mark>rah</mark>man Yurtaslan Ankara Oncology Education and Research Hospital, Ankara, Turkey

### Zafer Utkan

Kocaeli University Faculty of Medicine, Kocaeli, Turkey

### Sadullah Girgin

Dicle University, Faculty of Medicine, Diyarbakır, Turkey

### Durmuş Etiz

Osmangazi University Faculty of Medicine, Eskişehir, Turkey

### Alper Akcan

Erciyes University Faculty of Medicine, Kayseri, Turkey

### Gürhan Sakman

Çukurova University Faculty of Medicine, Balcalı Hospital, Adana, Turkey

### Şahande Elagöz

Sivas Cumhuriyet University Faculty of Medicine, Sivas, Turkey

### Yamaç Erhan

Celal Bayar University Faculty of Medicine, Manisa, Turkey

### Banu Arun

The University of Texas MD Anderson Cancer Center, Houston, TX, USA

### Sushil Beriwal

University of Pittsburgh School of Medicine, Pittsburgh, PA, USA

### Funda Meriç Bernstam

The University of Texas MD Anderson Cancer Center, Houston, TX, USA

### Jose L.B. Bevilacqua

University of São Paulo Faculty of Medicine, São Paulo, Brazil

### Marguerite Bonaventura

University of Pittsburgh School of Medicine, Pittsburgh, PA, USA

### Patrick Borgen

Maimonides Medical Center, New York, NY, USA

### Mihail Coculescu

University of Medicine and Pharmacy Carol Davila, Bucharest, Romania

### Ivan Drinkovic

Hrvatsko Senolosko Drustvo HLZ-a KB Merkur, Zagreb, Croatia

### Jeffrev Falk

St. John Hospital and Medical Center, Detroit, MI, USA

### Eisuke Fukuma

Breast Center, Kameda Medical Center, Kamogawa, Chiba, Japan

### Kevin S. Hughes

Harvard Medical School, Boston, MA, USA

### Lidija Lincender

Emeritus Professor, Sarajevo, Bosnia-Herzegovina

### Barry Lembersky

University of Pittsburgh School of Medicine, Pittsburgh, PA, USA

### Ronald Johnson

University of Pittsburgh, Magee-Womens Hospital, Pittsburgh, PA, USA

### Kandace McGuire

University of Pittsburgh, Magee-Womens Hospital, Pittsburgh, PA, USA

### Lydia Mouzaka

University of Athens School of Medicine, Athens, Greece

### Lisa A. Newman

University of Michigan, Comprehensive Cancer Center, Michigan, USA

### Masakuna Noguchi

Kanazawa University School of Medicine, Kanazawa, Japan

### Se-Jeong Oh

The Catholic University of Korea College of Medicine, Seoul, Korea

### Tadeusz Pienkowski

Medical University of Gdansk, Gdansk, Poland

### Antonio Pinero

Virgen de la Arrixaca University Hospital, Murcia, Spain

### Dimitrios H. Roukos

Ioannina University School of Medicine, Ioannina, Greece

### Miguel Oller Sanz

Clínica Abreu, Santo Domingo, Dominican Republic

### Barbara Lynn Smith

Massachusetts General Hospital, Boston, MA, USA

### Jules Sumkin

University of Pittsburgh School of Medicine, Pittsburgh, PA, USA

### Ayşegül Şahin

The University of Texas MD Anderson Cancer Center, Houston, TX, USA

### Jorge A. Toro

University of Pittsburgh, Magee-Womens Hospital, Pittsburgh, PA, USA

### Vincent Vinh-Hung

University Hospitals of Geneva, University of Geneva, Geneva, Switzerland

### M. Firdos Ziauddin

University of Pittsburg Medical Center, Pittsburgh, PA, USA



### Aims and Scope

The Journal of Breast Health is the open access, scientific online-only publication organ of the Turkish Federation of Breast Diseases Societies that is published in accordance with independent, unbiased, double blind peer review principles. (The journal, which was established in 2005 under the title of Meme Sağlığı Dergisi / The Journal of Breast Health, has been published under the title of The Journal of Breast Health (J Breast Health) as an online-only publication since April 2014)

The publication language of the journal is both in Turkish and English, and it is published quarterly on January, April, July and October.

The target audience of the journal includes specialists and medical professionals in general surgery and breast diseases.

The editorial policies and publication process are implemented in accordance with rules set by the International Committee of Medical Journal Editors (ICMJE), World Association of Medical Editors (WAME), Council of Science Editors (CSE), European Association of Science Editors (EASE), Committee on Publication Ethics (COPE), and the Heart Group.

The Journal of Breast Health is indexed in EBSCO, Index Copernicus, DOAJ, TUBITAK ULAKBIM TR Index and Turkish Citation Index.

All manuscripts must be submitted via the online submission system which is available through the journal's web page at www.thejournalofbreasthealth.com.

The journal's guidelines, technical informations and the required forms are available in the journal's web page.

Statements or opinions expressed in the manuscripts published in the journal reflect the views of the author(s) and not the opinions of the Turkish Federation of Breast Diseases Societies, the editors, the editorial board and/or the publisher; the editors, the editorial board and the publisher disclaim any responsibility or liability for such materials.

All published content is available online free of charge at www.thejournalofbreasthealth.com.

National and international copyrights of the published content belongs to the Turkish Federation of Breast Diseases Societies. Other than providing reference to scientific material, permission should be obtained from the Turkish Federation of Breast Diseases Societies for electronic submission, printing, distribution, any kind of reproduction and reutilization of the materials in electronic format or as printed media:

Editor: Prof. Dr. Vahit ÖZMEN

Address: İst<mark>anbul Üniversitesi</mark>, İstanbul Tıp Fakültesi<mark>, Genel Cerrahi Anabilim</mark> Dalı, Çapa, İstanbul

Phone: +90 (212) 534 02 10 Fax: +90 (212) 534 02 10

E-mail: editor@thejournalofbreasthealth.com Web: www.thejournalofbreasthealth.com

Publisher: AVES - İbrahim KARA

Address: Büyükdere Cad. 105/9 34394 Mecidiyeköy, Şişli, İstanbul, Turkey

Phone: +90 (212) 217 17 00 Fax: +90 (212) 217 22 92 E-mail: info@avesyayincilik.com

### Instructions to Authors

The Journal of Breast Health accepts research articles, case reports, reviews and technical reports on the condition that they have not been published or submitted for publication elsewhere. All articles undergo evaluation by the editors for style and by at least two independent referees scientifically. The publication language is both in English and in Turkish. Submission of scientific papers can be both either in English or Turkish. The translation of accepted Turkish manuscripts will be provided by our journal.

### PREPARATION OF MANUSCRIPTS

All articles should include the following parts:

The title should express the content of the article clearly.

Names and affiliations of the authors should not be stated in the main document. This information will be added in the submission process. All authors are expected to have contributed to the article. All authors will be identified by their initials and last names. At least one author should take the responsibility for all parts of the manuscript that influence the main conclusion. The first author will be held .responsible for conclusions. unless otherwise stated. All authors should sign a COPYRIGHT FORM and send it to the postal address of the journal for acceptance of the manuscript.

**Abstract:** All manuscripts in Turkish or English should include a Turkish and English abstract containing no less than 100 and no more than 250 words. The English summary should also include the title of the article in English. Summaries must include the aim, basic methods and applications, results, statistical significance and conclusions. Please write the research abstracts in the systematic format presented below. Case report, review and technical article abstracts can be submitted in plain format.

Keywords (2 keywords in both Turkish and English, compatible with Türkiye Bilim Terimleri - Medical Subject Headings, http://www.bilimterimleri.com)

The text of research articles should be divided into Introduction, Materials and Methods, Results, Discussion and Conclusions and References. Case reports, reviews and technical reports can be divided into parts as appropriate.

Introduction: The aim of the article should be clearly stated and briefly justified.

Materials and Methods: Please state the selection criteria of the study group and objects clearly. Methods used in the research should include reproducible detailed definitions. References must be given for specific and known methods and the reason for the selection of a specific method and its limitations must be explained. Generic names, doses and administration routes for all drugs and chemical agents must be indicated. The statistical methods used should be clearly stated and should be reproducible by others. Sampling methods and treatment complications should be defined; numbers as well as percentages should be given and the software used for statistical analysis should be included. At the time of submission, you are expected to present the ethical committee approval for experimental research in humans. Please do not use items displaying identities such as names, initials, and protocol numbers of patients and hospital names, particularly in the legends of photographs.

**Results:** The results of the research must be presented in the text, in tables or figures in a reasonable sequential manner. Results presented in tables and figures should not be repeated in the text; only the major findings can be underscored.

**Discussion and Conclusions:** Only novel and significant conclusions drawn from the data obtained in the study should be discussed. Conclusions must be associated with the aims. Please avoid stating conclusions unsupported by the study data or presenting imprecise results.

**References:** References cited in the text, tables and figures must be identified with arabic numbers placed in parenthesis (1,2,3..). Please number references in order of appearance. References should include the names of all authors; abbreviations such as ."et.al." or "ve ark" should not be used. The Index Medicus abbreviation of the journal title must be used. Accepted but unpublished references can be cited

by adding the expression of (in print) at the end of the reference. Online resources are welcome in case they are scientific manuscripts. Accuracy of references is the responsibility of the authors.

References included in Pubmed indexes should be identified by adding the Pubmed number at the end of the reference so that the abstract of the relevant source can be accessible. PubMed internet search will give this number. Entering the names of the first three authors is usually sufficient to search for a reference; if you cannot achieve a result with such a search, you may enter the full title of the reference. You must add the Pubmed number indicated as PMID=xxxxxxxx under the abstract, in parenthesis at the end of the reference.

### Samples

### Article

Little FB, Koufman JA, Kohut RI, Marshall RB. Effect of gastric acid on the pathogenesis of subglottic stenosis. Ann Otol Rhinol Laryngol 1985; 94:516-519. (PMID: 4051410)

### Chapter of a Book

Shires GT, Thal ER, Jones RC, Shires GT III, Perry MO. Trauma. In: Schwartz SI, ed. Principles of Surgery, 6th ed. New York: McGraw-Hill, 1994:175-224.

### Bool

Kellman RM, Marentette LJ. Atlas of Craniomaxillofacial Fixation. New York: Raven Press, 1995.

### Internet Resources

Morse SS. Factors in the emergence of infectious diseases. Emerg Infect Dis (serial online) 1995 Jan-Mar (cited 1996 June 5): 1(1): (24 screens). Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2626828/pdf/8903148.pdf.

**Tables:** Tables should be identified with Arabic numbers (1,2,3,.) in the order mentioned in the text. Please include a legend for each table. Tables must also include information indicating statistical significance such as standard deviation, standard error of means and p-value. The tables should be mentioned in the text.

**Photographs, Illustrations and Graphics:** Photographs, illustrations and graphics to be submitted electronically should be no more than 800 pixels wide, 600 pixels long, at least 200 pixels wide and 150 pixels long. Photographs should be sent in the highest quality JPEG format with a minimum compression factor, and illustrations with a fixed color tint should be sent in the GIF format. Editors may decide to minimize photographs and illustrations or change their resolution as required by the page format.

**Video clips:** Video images should be in the MPEG format, 240 pixels wide and 172 pixels high.

Measures: All measures must be expressed in metric units.

**Abbreviations and Symbols:** Please use only the accepted standard abbreviations and avoid using abbreviations in the title and abstract. Abbreviations should be defined in the text where they are first mentioned.

**Acknowledgements:** Authors may write a short note of acknowledgment to persons or institutions, which have contributed to the preparation of the manuscript, made methodological contributions, supplied materials or given financial support.

**Ethics:** Manuscripts reporting the results of experimental studies on human subjects must include a statement that informed consent was obtained after the nature of the procedure(s) had been fully explained. Manuscripts describing investigations in animals must clearly indicate the steps taken to eliminate pain and suffering. Authors are advised to comply with internationally accepted guidelines, stating such compliance in their manuscripts and to include the approval by the local institutional human research committee.

### **Contents**

### **REVIEW**

The Role of Oncoplastic Breast Surgery in Breast Cancer Treatment Mustafa Emiroğlu, İsmail Sert, Abdullah İnal

### **ORIGINAL ARTICLES**

- Problems In Determining Her2 Status In Breast Carcinoma
  Emel Ebru Pala, Ümit Bayol, Alp Özgüzer, Ülkü Küçük, Çağlar Yıldız Akdeniz, Özlem Sezer
- 17 The Effect of Socio-Economic-Cultural Factors on Breast Cancer Abdurahman Kuzhan, Mustafa Adlı
- Evaluation of Breast Cancer Cases Diagnosed In the Breast Cancer Screening Programs In the Near East University Hospital of North Cyprus

  Muhabbet Koralp Durdiyeva, Hasan Besim, Kalbim Arslan, Hanife Özkayalar, Güliz Yılmaz, Gamze Kuzey Mocan, Nail Bulakbaşı
- 26 Barriers on Breast Cancer Early Detection Methods Yasemin Erkal Aksoy, Esin Çeber Turfan, Ebru Sert, Gülengül Mermer
- Determination of Knowledge and Behavior of Women Working at a Hospital on Breast Cancer Early Detection Methods, and Investigation of Efficiency of Planned Education

  Ayla Açıkgöz, Rüksan Çehreli, Hülya Ellidokuz

### **CASE REPORTS**

- Pseudoangiomatous Stromal Hyperplasia of The Breast (Pash) Presenting As A Giant Breast Tumor: A Case Report Koray Kutlutürk, Sertaç Usta, Bülent Ünal, Neşe Karadağ, Ayşe Nur Akatlı
- Possible Synchronous Lung Metastasis of Breast Mass Detected Using Breast Ultrasonography: A Report of Two Cases
  Tümay Bekci
- Intracystic Carcinoma of the Breast: Report of Two Cases
  Enver İlhan, Orhan Üreyen, Abdullah Şenlikci, Ayşe Yağcı, Eyüp Yeldan, Tarık Salman, Mehmet Tahsin Tekeli
- Long-term Survival after Lapatinib Rechallenge in Isolated Brain Metastasis of HER2-positive Breast Cancer Bülent Karagöz, Alpaslan Özgün, Levent Emirzeoğlu, Tolga Tunçel, Serkan Çelik, Oğuz Bilgi, Kemal Kara

### From the Editor

### ENDOSCOPIC ASSISTED ONCOPI ASTIC BREAST SURGERY

Minimal invasive endoscopic surgery have been widely used in many fields of surgery. Oncoplastic breast surgery is one of the rare field where the breast surgeons have not met yet the endoscopic surgery. The late meeting of the breast surgeons with endoscopic surgery may be due to the inherent low morbidity, low pain, small incisions and successful cosmetic results of the oncoplastic breast surgery techniques. It is only after Kompatscher used endoscopy for capsulotomy in breast for the first time in 1992 that the breast surgeons became interested with endoscopic techniques in breast surgery.

Endoscopic oncoplastic breast surgery represents a minimal invasive approach with the aim of both removing cancer safely and also restoring the body image. Less noticeable scar, excellent cosmetic outcomes and recently reported relatively long term safety lead to be established the technique as a routine clinical practice in some institutions of some Asian Countries such as Japan, Korea and China.

Operative techniques for both endoscopic breast conserving surgery and endoscopic nipple/areola/skin sparing mastectomy have been described in detail and being widely used. Tumor localization and marking the proposed resection margins on the skin are achieved preoperatively by injections of colored dye at several points at the tumor periphery by radiologic guidence. The purposed surgical margin is marked usually 2 cm distant from the tumor edge.

Two different working planes are used during the surgery. One of them is subcutaneous plane where the skin flap is developed, and the other one is sub-mammary plane. Skin incisions are placed usually in either periareolar region or in the axilla. Sentinel lymph node incision in the axilla is used for retromammary dissection while the periareolar incision is the route for subcutaneous dissection and for retrieving the resected specimen. Light guided specific mammary retractors are also used during subcutaneous dissection. Wound protectors are usually used to ensure adequate visualization and to protect the periareolar and axillary skin.

Endoscopic dissection between the pectoralis muscle and the posterior breast is performed with various retractors such as Ultra Retractor. Endoscopic breast retractors allow for a magnified view and extensive posterior breast dissection. Subcutaneous tunneling method is the most commonly used technique for endoscopic subcutaneous dissection. Septa between the tunnels are then dissected under endoscopic guidence. The tumescent technique in which epinephrine containing physiological saline is injected into the subcutaneous tissue provides more easy and bloodless dissection. Bipolar scissors and electrocautery are used for tissue dissection and coagulation in both subcutaneous and retromammary dissection planes. Colored dye injected at the tumor periphery or at the breast boundary determines the extent of the dissection.

To repair the defect of the excised breast tissue, usually the volume displacement technique are used. Widely dissected mammary gland and adipose tissue are mobilized to the defect and sutured by the help of light guided mammary retractors.

Endoscopic assisted breast surgery provides, in general, excellent cosmesis with minimal scar. Less noticeable scar is the most important advantage of endoscopic breast surgery. Most of the patients are satisfied with the provided cosmesis.

An average operation duration time for endoscopic assisted breast surgery has been reported as equal or 30-50 minutes longer or 20-25 minutes shorter than open breast surgery. The different results can be attributed to the different techniques used in. In general the reported longer operative durations are due to woking in a limited and small surgical dissection field.

### From the Editor

Complication rates of endoscopic breast surgery are similar to open breast surgery rates. The most serious complications related with the technique are skin, muscle and nipple necrosis which are comparable to the results of the open procedures. Intraoperative blood loss is not different between endoscopic and open breast surgery.

A positive surgical margin rate in endoscopic breast surgery is between 0% to 25% and is not inferior to that open breast surgery. Local recurrens following endoscopic breast surgery is infrequently reported. Eventhough having a shorter follow-up time with an average of 24 months there was no recurrens in reported studies. On the other hand, overall survival rates following endoscopic and open breast cancer surgery are comparable with an average 20 months follow-up. Endoscopic breast surgery leads to an equivalent risk with open breast surgery for local and distant disease recurrence. Overall survival also demonstrated favorable results with endoscopic breast surgery in some studies. However the follow-up periods are too short to compare the endoscopic breast surgery with open surgery. It looks reasonable to wait for the results with longer follow-up before having a judgement about oncologic efficiency and safety of the endoscopic breast cancer surgery.

The current disadvantage of endoscopic breast surgery is the additional cost related to the use of some new devices which are not approved yet by health insurance providers for breast cancer surgery.

As a result, it looks like that endoscopic breast surgery is a new field that the breast surgeons will deal with for the forthcoming years.

Gürsel Soybir