



# The Anatolian Journal of Cardiology

Anatol J Cardiol • Volume 17 • Issue 6 • June 2017

## Editor-in-Chief

Bilgin Timuralp

## Editor

Zeki Öngen

## Advisory Board of This Issue

Tolga Aksu

Uğur Aksu

Azin Alizadehasl

Hamiyet Dönmez-Altuntaş

Jiro Aoki

Halil Ataş

Vedat AYTEKİN

Nermin Bayar

Claudia Bolognesi

Zehra Buğra

Günnur Demircan

Mustafa Gülgün

László Hadadi

Mateusz Holda

Min-Kyung Kang

Bilgehan Karadağ

Ahmet Karagöz

Derya Karpuz

Yavuzer Koza

Mei Liu

Dimitrios Maragiannis

Kadir Uğur Mert

Gjin Ndrepepa

Alaa Omar

Alessandro Paoletti Perini

Türkey Sarıtaş

Alireza Shirpoor

Hüseyin Şahin

Ahmet Temizhan

Selma Arzu Vardar

Murat Muhtar Yilmazer

## Meta-Analysis

A meta-analysis of 3-D printing in cardiovascular and cerebrovascular diseases  
Zhonghua Sun, et al; Taichung-*Taiwan*

## Hot Topic

Algorithm for predicting CHD death risk in Turkish adults: Conventional factors contribute in women?  
Altan Onat, et al; İstanbul-*Turkey*

## Original Investigations

Major bleeding events of Jordanian in coronary intervention: The First Jordanian PCI Registry (JoPCR1)  
Mohamad Jarrah, et al; Irbid-*Jordan*

Ethyl acetate fraction of *Allium hirtifolium* improves function of isolated hearts of diabetic rats  
Sara Khaleghi, et al; Kermanshah-*Iran*

Editorial comment: Medicinal plants for management of diabetes: alternative or adjuvant?  
Alireza Shirpoor; Urmia-*Iran*

Directly VSD closure without arteriovenous wire loop: transarterial retrograde approach  
Nihat Pekel, et al; Izmir-*Turkey*

Editorial comment: Ventricular septal defect closure without using arteriovenous wire loop  
Sedigheh Saedi, et al; Tehran-*Iran*

A practical guide for building a highway between atria during transseptal puncture without radiation  
Yuan Yuan, et al; Beijing-*China*

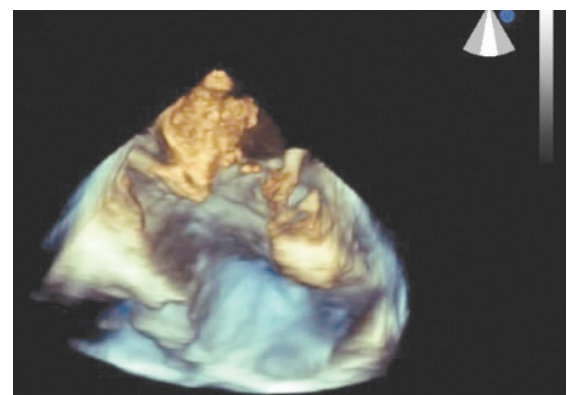
Editorial comment: Radiationless transseptal puncture  
Jakub P. Holda; Cracow-*Poland*

Left ventricular twist was decreased in isolated left bundle branch block with preserved ejection fraction  
Sabiye Yılmaz, et al; Sakarya-*Turkey*

Editorial comment: Ventricular twist in bundle branch block: electromechanical coupling  
Alaa Mabrouk Salem Omar, et al; Cairo-*Egypt*

The relationship of micronucleus frequency and nuclear division index with coronary artery disease  
Emrah İpek, et al; Erzurum-*Turkey*

Page: 490



**Editor-in-Chief**Bilgin Timuralp, *Eskişehir, Turkey***Editor**Zeki Öngen, *İstanbul, Turkey***Associate Editors**

Alparslan Birdane, *Eskişehir, Turkey* Selma Metintaş, *Eskişehir, Turkey*  
 Yüksel Çavuşoğlu, *Eskişehir, Turkey* Sanem Nalbantgil, *İzmir, Turkey*  
 Recep Demirbağ, *Şanlıurfa, Turkey* Kurtuluş Özdemir, *Konya, Turkey*  
 Sadi Güleç, *Ankara, Turkey* Ercan Tutar, *Ankara, Turkey*  
 Ali Gürbüz, *İzmir, Turkey* Berrin Umman, *İstanbul, Turkey*  
 Mustafa Kılıçkap, *Ankara, Turkey* Aylin Yıldırım, *Ankara, Turkey*  
 Mehmet Birhan Yılmaz, *Sivas, Turkey*

**Editor-in-Chief Consultant**Suna Kırac, *Lefkoşe, KKTC***Senior Consultant in Biostatistics**Kazım Özdamar, *Eskişehir, Turkey***Consultant in Biostatistics**Fezan Mutlu, *Eskişehir, Turkey***Editorial Board**

Adnan Abacı, *Ankara, Turkey*  
 Kamil Adalet, *İstanbul, Turkey*  
 Ramazan Akdemir, *Sakarya, Turkey*  
 Levent Akyürek, *Göteborg, Sweden*  
 Necmi Ata, *Eskişehir, Turkey*  
 Tayfun Aybek, *Ankara, Turkey*  
 Saide Aytekin, *İstanbul, Turkey*  
 Vedat Aytekin, *İstanbul, Turkey*  
 Ljuba Bacharova, *Bratislava, Slovak Republic*  
 Luiggi P. Badano, *Udine, Italy*  
 Gani Bajraktari, *Prishtina, Kosovo*  
 Işık Başar, *İstanbul, Turkey*  
 Canan Baydemir, *Kocaeli, Turkey*  
 George A. Beller, *Charlottesville, VA, USA*  
 Dirk L. Brutsaert, *Antwerp, Belgium*  
 Gerald D. Buckberg, *Los Angeles, CA, USA*  
 Cahid Civelek, *St. Louis, MO, USA*  
 Ertan Demirtaş, *Ankara, Turkey*  
 Ali Emin Denктаş, *Houston, TX, USA*  
 Polychronis Dilaveris, *Athens, Greece*  
 Fırat Duru, *Zurich, Switzerland*  
 Rasim Enar, *İstanbul, Turkey*  
 Oktay Eray, *Antalya, Turkey*

Ertuğrul Ercan, *İzmir, Turkey*  
 Okan Erdoğan, *İstanbul, Turkey*  
 Ali Ergin, *Kayseri, Turkey*  
 Ali Serdar Fak, *İstanbul, Turkey*  
 Roberto Ferrari, *Ferrara, Italy*  
 Armen Y. Gasparyan, *West Midlands, UK*  
 Ali Gholamrezanezhad, *Tehran, Iran*  
 Bülent Görenek, *Eskişehir, Turkey*  
 Sema Güneri, *İzmir, Turkey*  
 Masayasu Hiraoka, *Tokyo, Japan*  
 Erkan İriz, *Ankara, Turkey*  
 Diwakar Jain, *Philadelphia, USA*  
 Charles Jazra, *Bawchrieh, Lebanon*  
 Göksel Kahraman, *Kocaeli, Turkey*  
 Mehmet Kaplan, *İstanbul, Turkey*  
 Erdem Kaşıkçıoğlu, *İstanbul, Turkey*  
 Cihançir Kaymaz, *İstanbul, Turkey*  
 Mustafa Kılıç, *Denizli, Turkey*  
 Serdar Kula, *Ankara, Turkey*  
 Serdar Küçüköğlü, *İstanbul, Turkey*  
 Samuel Levy, *Marseille, France*  
 Peter Macfarlane, *Renfrewshire, Scotland*  
 Robert W. Mahley, *San Francisco, CA, USA*

G.B. John Mancini, *Vancouver BC, Canada*  
 Matti Mänttari, *Helsinki, Finland*  
 Barry J. Maron, *Minnesota, USA*  
 Pascal Meier, *London, UK*  
 Franz H. Messerli, *New York, USA*  
 Haldun Müderrisoğlu, *Ankara, Turkey*  
 İstemi Nalbantgil, *İzmir, Turkey*  
 Navin C. Nanda, *Birmingham, AL, USA*  
 Yılmaz Nişancı, *İstanbul, Turkey*  
 Altan Onat, *İstanbul, Turkey*  
 Hakan Oral, *Ann Arbor, MI, USA*  
 Necla Özer, *Ankara, Turkey*  
 Mehmet Bülent Özün, *Ankara, Turkey*  
 Mehmet Özkan, *İstanbul, Turkey*  
 Süheyla Özkutlu, *Ankara, Turkey*  
 Azmi Özler, *İstanbul, Turkey*  
 Sotirios N. Prapas, *Athens, Greece*  
 Shahbudin Rahimtoola, *Los Angeles, CA, USA*  
 Vedat Sansoy, *İstanbul, Turkey*  
 Muhammed Saric, *New York, USA*  
 Murat Sezer, *İstanbul, Turkey*  
 Mark V. Sherrid, *New York, USA*  
 Horst Sievert, *Frankfurt, Germany*

İlke Sipahi, *İstanbul, Turkey*  
 Hulki Meltem Sönmez, *Aydın, Turkey*  
 Richard Sutton, *Monaco, Monaco*  
 Ahmet Şaşmazel, *İstanbul, Turkey*  
 Zeynep Tartan, *İstanbul, Turkey*  
 Oğuz Taşdemir, *Ankara, Turkey*  
 Ahmet Temizhan, *Ankara, Turkey*  
 Adam Timmis, *London, England*  
 S. Lale Tokgözoğlu, *Ankara, Turkey*  
 Oktay Tutarel, *Hannover, Germany*  
 Murat Tuzcu, *Cleveland, OH, USA*  
 Taner Ulus, *Eskişehir, Turkey*  
 Dilek Ural, *Kocaeli, Turkey*  
 Ahmet Ünalır, *Eskişehir, Turkey*  
 Marc A. Vos, *Utrecht, Netherlands*  
 Hein Wellens, *Maastricht, Netherlands*  
 Nuran Yazıcıoğlu, *İstanbul, Turkey*  
 Murat Yeşil, *İzmir, Turkey*  
 Kiyoshi Yoshida, *Okayama, Japan*  
 Mehmet Yokuşoğlu, *Ankara, Turkey*  
 Jose L. Zamorano, *Madrid, Spain*  
 Wojciech Zareba, *New York, USA*  
 Mehdi Zoghi, *İzmir, Turkey*



**The Owner and Publishing Manager on behalf of the Turkish Society of Cardiology**

**Türk Kardiyoloji Derneği adına İmtiyaz Sahibi ve Sorumlu Yazı İşleri Müdürü**  
 Mahmut ŞAHİN

Address : Nish İstanbul A Blok Kat: 8, No: 47-48  
 Çobançeşme Sanayi Cad. No: 11  
 Yenibosna, Bahçelievler 34196  
 İstanbul, Türkiye  
 Phone : +90 212 221 1730-38  
 Fax : +90 212 221 1754  
 E-mail : tkd@tkd.org.tr  
 Web : www.tkd.org.tr

**Editor-in-Chief Office**

Phone : +90 222 229 15 65  
 Fax : +90 222 229 15 85  
 E-mail : info@anatoljcardiol.com  
 btimur@ogu.edu.tr

**Assistants to the Editor-in-Chief**

Betül TUNTAŞ  
 Asiye SALMAN  
 Elif DEMİREL



*The Anatolian Journal of Cardiology is partly supported by University of Eskişehir Osmangazi (ESOGU).*

ESKİŞEHİR OSMANGAZI ÜNİVERSİTESİ  
 MEŞELİK KAMPÜSÜ 26480 ESKİŞEHİR  
 Phone: +90 222 239 71 48  
 Fax: +90 222 239 54 00



Publisher: Kare Yayıncılık (Kare Publishing)  
 Altayçeşme Mah., Atatürk Caddesi, Engin Sokak, No: 3,  
 Kat: 4, Daire: 20, 34843 Maltepe, İstanbul, TURKEY

Phone: +90 216 550 61 11  
 Fax: +90 216 550 61 12  
 http://www.kareyayincilik.com  
 E-mail: kareyayincilik@gmail.com

Ali CANGÜL, Neslihan ÇAKIR

Yayın Türü: Uluslararası Süreli, Basım Tarihi: Haziran 2017  
 Basım: Yıldırım Matbaacılık, Yüzyıl Mah. Massit Matbaacilar Sitesi,  
 1. Cad. No: 101, Bağcılar, İstanbul, Tel: +90212 629 80 37

## AIMS AND SCOPE

The *Anatolian Journal of Cardiology* is an international monthly periodical on cardiology published on independent, unbiased, double-blinded and peer-review principles. The journal's publication language is English however titles of articles, abstracts and Keywords are also published in Turkish on the journal's web site.

The *Anatolian Journal of Cardiology* aims to publish qualified and original clinical, experimental and basic research on cardiology at the international level. The journal's scope also covers editorial comments, reviews of innovations in medical education and practice, case reports, original images, scientific letters, educational articles, letters to the editor, articles on publication ethics, diagnostic puzzles, and issues in social cardiology.

The target readership includes academic members, specialists, residents, and general practitioners working in the fields of adult cardiology, pediatric cardiology, cardiovascular surgery and internal medicine.

The editorial and publication processes of the journal are conducted in accordance with the guidelines of the International Committee of Medical Journal Editors (ICMJE), the World Association of Medical Editors (WAME), the Council of Science Editors (CSE), the European Association of Science Editors (EASE), the Committee on Publication Ethics (COPE) and the HEART Group.

The *Anatolian Journal of Cardiology* is indexed in Science Citation Index Expanded, PubMed/MEDLINE, EMBASE, Scopus, EMCare, CINAHL, Gale/Cengage Learning, EBSCO, DOAJ, ProQuest, Index Copernicus and TÜBİTAK ULAKBİM TR Index.

The requirements for submission of manuscripts and detailed information about the evaluation process are available in the published journal and also as 'Instructions for Authors' on the web site (<http://www.anatoljcardiol.com>).

Statements and opinions expressed in the *Anatolian Journal of Cardiology* reflect the views of the author(s). All liability for the advertisements rests with the appropriate organization(s). The Turkish Society of Cardiology, the editor-in-chief and KARE PUBLISHING do not accept any responsibility for these articles and advertisements.

### Subscriptions

The *Anatolian Journal of Cardiology* is printed on acid-free paper. Applications for subscriptions should be made to the Editorial Office. The abstracts and full texts of published articles can be accessed free of charge at <http://www.anatoljcardiol.com>.

### Financial support and advertising

The revenue of the *Anatolian Journal of Cardiology* is derived from subscription charges and advertisements. Institutions wishing to place an advertisement in the printed version of the journal or on the web page should contact KARE PUBLISHING.

**Owner** : Turkish Society of Cardiology  
**Address** : Çobançeşme Sanayi Cad., No: 11, Nish İstanbul, A Blok, No: 47-48,  
 34196, Yenibosna, Bahçelievler, İstanbul, TURKEY  
**Phone** : +90 212 221 17 30 / +90 0212 221 17 38  
**Fax** : +90 212 221 17 54  
**E-mail** : [tkd@tkd.org.tr](mailto:tkd@tkd.org.tr)

### Editor-in-Chief: Prof. Bilgin Timuralp

**Address** : ESOGÜ Tıp Fakültesi, Merkezi Derslikler, Kat: 3, No: 1, 26480, Meşelik, Eskişehir, TURKEY  
**Phone** : +90 222 229 15 65 / +90 538 480 43 30  
**Fax** : +90 222 229 15 85  
**E-mail** : [info@anatoljcardiol.com](mailto:info@anatoljcardiol.com)

### Publisher : KARE PUBLISHING

**Address** : Altayçeşme Mah., Atatürk Caddesi, Engin Sokak, No: 3, Kat: 4, Daire: 20, 34843 Maltepe, İstanbul, TURKEY  
**Phone** : +90 216 550 61 11  
**Fax** : +90 216 550 61 12  
**E-mail** : [kareyayincilik@gmail.com](mailto:kareyayincilik@gmail.com)

## INSTRUCTIONS FOR AUTHORS

The *Anatolian Journal of Cardiology* is published in accordance with the principles of independent, unbiased, and double-blinded peer review. It publishes original research related to clinical, experimental and basic sciences on cardiology, editorial comments, reviews covering current issues, educational articles, scientific letters, case reports, letters to the editor, original images, articles on history of medicine and publication ethics, diagnostic puzzles, and interviews deemed appropriate for the purposes and scope of the journal.

The journal evaluates only the manuscripts submitted through its online submission system on the web site <http://www.anatoljcardiol.com>. Manuscripts sent by other means will not be accepted.

The primary conditions for the acceptance of manuscripts for publication are originality, scientific value and citation potential.

### STATEMENTS AND GUIDELINES

#### Statements

- All statements and opinions expressed in the manuscripts published in the *Anatolian Journal of Cardiology* reflect the views of the author(s). All liability for the advertisements rests with the appropriate organization(s). The Turkish Society of Cardiology, the Editor-in-Chief and KARE do not accept any responsibility for articles and advertisements.
- The manuscripts submitted to the journal, except abstracts, presentations, reviews and parts of theses, should not have been accepted and published previously elsewhere in electronic or printed format. Manuscripts evaluated and rejected by other journals must mention any previous submissions and supply reviewer's reports. This will help to accelerate the evaluation process. If the submitted manuscript has been previously presented at a meeting, the name, date, city and country must be specified.
- The authors transfer all copyrights of the manuscript in the framework of national and international regulations to the Turkish Society of Cardiology as of evaluation process. A Copyright Transfer Form signed by corresponding author in order must be submitted to the journal with manuscript. After acceptance of manuscript, all of authors must fill and sign Copyright Transfer form. A separate form for each manuscript should be submitted. Manuscripts submitted without a Copyright Transfer Form will not be accepted. In the case of rejection, all copyrights transfer to the authors again. Authors must confirm that they will not submit the work to another journal, publish it in the original or another language and or allow a third party to use the manuscript without the written permission of the Turkish Society of Cardiology.
- All contents are the authors' responsibility. All financial liability and legal responsibility associated with the copyright of submitted tables, figures and other visual materials protected by national and international laws rest with the authors. The authors take responsibility for any legal proceedings issued against the journal.
- Rejected manuscripts will not be returned except for artwork.
- To clarify scientific contributions and responsibilities and any conflict of interest issues relevant to the manuscript, all parts of the 'Authors' Contribution' form must be completed by the corresponding author and the 'ICMJE Uniform Disclosure Form for Potential Conflicts of Interest' must be completed online by all authors. Both forms should be included in the manuscript at the time of original submission.

#### Guidelines

- The format of the manuscripts must be in accordance with the ICMJE Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals (updated in December 2014: <http://www.icmje.org/icmje-recommendations.pdf>).
- The presentation of the manuscripts must be in accordance with international guidelines. CONSORT should be used for randomized trials, STROBE for observational studies, STARD for diagnostic studies, PRISMA for systematic reviews and meta-analyses, ARRIVE for animal studies, and TREND for non-randomized behavior and public health studies.

#### Ethics

- All manuscripts will be vetted by the Editor-in-Chief's Office for possible plagiarism and duplication. Sanctions will be imposed in accordance with the guidelines of the Committee on Publication Ethics (COPE) and with the principles of the HEART Group when non-ethical issues arise. The authors must obtain the permission of the copyright holder for non-original tables, figures, graphs, images and other visuals.
- The authors should acknowledge and provide detailed information on any contributions in kind and financial support given by any foundations, institutions and firms.
- An ethics committee report prepared in conformity with the *WMA Declaration of Helsinki - Ethical Principles for Medical Research Involving Human Subjects and the Guide for the Care and Use of Laboratory Animals* is required to be submitted with experimental and clinical studies, drug trial studies and some case reports. Authors may be asked by the Editor-in-Chief's Office for an ethics committee report or similar in other circumstances also. Manuscripts reporting the results of experimental studies must explain in detail all procedures which volunteer subjects and patients have undergone and a statement indicating that consent for the study has been obtained from all subjects should be included in the text. Animal studies should clearly specify how pain or discomfort has been relieved.

### PREPARATION AND SUBMISSION OF MANUSCRIPTS

Manuscript files should be prepared with Microsoft Office Word. The online submission system will direct authors during all stages of submission and provide necessary support for accelerating the submission process. A list of the files that should be supplied through the online submission system is provided below.

- Title Page
- Main Text
- Tables, Graphs and Figures
- Copyright Transfer Form
- Author Contribution Form
- ICMJE Uniform Disclosure Form for Potential Conflicts of Interest

#### 1. Title Page

Information about the authors and their institutions should not be included in the main text, tables, figures and video documents. Since submitted manuscripts are evaluated by the reviewers through the online system, personal identification is excluded in the interests of unbiased interpretation. Thus, only information about the manuscript as specified below should be included on the title page. For each type of manuscript, it is mandatory to upload a title page as a separate Microsoft Word document through the online submission system. The title page should include the names of the authors with their latest academic degrees, and the name of the department and institution, city and country where the study was conducted. If the study was conducted in several institutions, the affiliation of each author must be specified with symbols. The correspondence address should contain the full name of the corresponding author, postal and e-mail addresses, phone and fax numbers. If the content of the manuscript has been presented before, the name, date and place of the meeting must be noted. Disclosure of conflict of interest, institutional and financial support, author contributions and acknowledgments should be included on the title page.

#### 2. Main Text

The manuscripts submitted to our journal are classified and evaluated according to the manuscript types stated below. During preliminary evaluation, the editors assess whether a manuscript's format and sub-headings are prepared in accordance with the journal's guidelines. Therefore, it is important that authors check the accuracy of the main text in terms of the following.

##### A. Manuscript types

- Original investigation
- Editorial comment
- Review
- Education
- Scientific letter
- Case report
- Original image
- Letter to the editor
- Publication ethics
- Scientific puzzle
- Miscellaneous articles

##### B. References

##### C. Special Terms and Conditions

#### A. Manuscript types

##### • Original Research

- Title
- Structured Abstract: It should be structured with Objective, Methods, Results and Conclusion subheadings and should be limited to 250 words.
- Keywords: This section should contain a minimum of three and a maximum of six items in accordance with Medical Subject Headings (MeSH) terms prepared by the National Library of Medicine (NLM) and should be placed just below the abstract.
- Main Text: It should consist of Introduction, Methods, Results, Discussion, Limitations of the Study and Conclusion sections and should not exceed 5000 words excluding the references.
- References: The reference list should be provided following the Main Text. Limiting the number of references to 50 is usually sufficient.
- Tables, Figures and Images: They should be placed below the reference list and numbered according to their consecutive order in the main text.
- Title, Structured Abstract and Keywords should also be provided in Turkish for manuscripts submitted by Turkish authors or from Turkey. However, translations of these sections for manuscripts submitted by foreign authors outside Turkey will be the responsibility of the publisher.

**Statistical Analysis:** Statistical analysis should be conducted in accordance with the guidelines on reporting statistical data in medical journals [Altman DG, Gore SM, Gardner MJ, Pocock SJ. Statistical guidelines for contributors to medical journals. *Br Med J* 1983; 7; 1489-93 and Lang T, Altman D. Basic statistical reporting for articles published in clinical medical journals: the **SAMPL Guidelines**. In: Smart P, Maisonneuve H, Polderman A (editors). *Science Editors' Handbook*, European Association of Science Editors, 2013.]. The software used for statistical analysis must be described. Data must be expressed as mean  $\pm$  standard deviation when parametric tests are used to compare continuous variables. For nonparametric tests, data must be expressed as median (minimum-maximum) or percentiles (25<sup>th</sup> and 75<sup>th</sup> percentiles). In advanced and complex statistical analyses, relative risk (RR), odds ratio (OR) and hazard ratio (HR) must be supported by confidence intervals and p values. The outcomes of statistical analyses and interpretation of the results must be in evidence-based scientific language (Editors of Heart Group journals. Statement on matching language to the type of evidence used in describing outcomes data. *Anatolian Journal of Cardiology* 2012;12:709).

### • Editorial Comment

Authors are selected and invited by the Editor-in-Chief. This type of manuscript aims at providing a brief commentary on an article published in the journal by a researcher who is an authority in the relevant field or by the reviewer of the article.

- Title
- Main Text: It should not include subheadings and should be limited to 500 words.
- References: The reference list should follow the main text and the number of references should be limited by 15.
- Abstract, Keywords, Tables, Figures, Images and other visuals are not included in editorial comments.
- The title should also be provided in Turkish for works submitted by Turkish authors or from Turkey. The title of the manuscripts submitted by foreign authors outside Turkey will be translated into Turkish by the Editor-in-Chief's Office.

### • Review

Reviews prepared by authors with extensive knowledge on a particular field, which has been reflected in international literature by a high number of publications and citations, are evaluated. The authors may be invited by the Editor-in-Chief. A review should be prepared in the format describing, discussing and evaluating the current level of knowledge or topic that is to be used in the clinical practice and it should guide further studies.

- Title
- Abstract: It should not include subheadings and should be limited to 250 words.
- Keywords: This section should contain a minimum of three and a maximum of six items in accordance with Medical Subject Headings (MeSH) terms prepared by the National Library of Medicine (NLM) and should be provided just below the abstract.
- Main Text: It should include Introduction, other subheadings and Conclusion sections and should be limited to 5000 words excluding the references.
- References: The reference list should be placed just below the main text and the number of references should not exceed 50.
- Tables, Figures and Images: They should be provided after the reference list according to their order of appearance in the text.
- For reviews submitted by Turkish authors or from Turkey, Title, Abstract and Keywords should also be provided in Turkish. For reviews submitted by foreign authors outside Turkey, translations of these sections will be the responsibility of the publisher.

**NOTE:** The originality of the visuals included in the reviews should be assured by submission of an accompanying letter by the authors. Appropriate citation should be done for the visuals adapted from previously published sources, in accordance with the original versions of the printed or electronic copies. The written permission obtained from the copyright holder (publisher, journal or authors) should be sent to the Editor-in-Chief's Office.

### • Education

Knowledge confirmed by the results of recent research studies, involved in education at academic level and used in clinical practices should be presented in detail in this type of manuscript.

- Title
- Abstract: It should not include subheadings and it should be limited to 250 words.
- Keywords: This section should contain a minimum of three and a maximum of six items in accordance with Medical Subject Headings (MeSH) terms prepared by the National Library of Medicine (NLM) and should be provided just below the abstract.
- Main Text: It should include Introduction, other subheadings and Conclusion sections and should not exceed 5000 words excluding the references.
- References: The reference list should be provided just below the main text and the number of references should be limited to 50.
- Tables, Figures and Images: They should be provided after the reference list according to their order of appearance in the main text.
- For educational articles submitted by Turkish authors or from Turkey, Title, Abstract and Keywords should also be provided in Turkish. For articles submitted by foreign authors outside Turkey, the translation of these sections will be carried out by the Editor-in-Chief's Office.

### • Scientific Letter

Manuscripts which announce a new scientific invention, are clinically significant, and are in the form of a preliminary report are accepted for publication as scientific letters.

- Title
- Main Text: It should include Introduction, other subheadings and Conclusion sections and should not exceed 900 words excluding the references.
- References: The reference list should be provided just below the main text and the number of references should be limited to 10.
- Tables, Figures and Images: They should be provided below the reference list according to their order of appearance in the text and should be limited to two.
- Abstract and Keywords should not be included.
- For scientific letters submitted by Turkish authors or from Turkey, the Title should also be provided in Turkish. For letters submitted by foreign authors outside Turkey, the translation of these sections will be carried out by Editor-in-Chief's Office.

### • Case Report

Since a limited number of case reports is published, only reports which are related to rare cases and conditions that constitute challenges in diagnosis and treatment, offer new methods or suggest knowledge not included in books, and are interesting and educational are accepted for publication.

- Title
- Main Text: It should include Introduction, Case Report, Discussion and Conclusion sections and should not exceed 700 words excluding the references.
- References: The reference list should follow the main text and the number of references should be limited to 10.

- Tables, Figures and Images: They should be provided after the reference list according to their order of appearance in the text and should be limited to two.
- Abstract and Keywords are not included.
- For case reports submitted by Turkish authors or from Turkey, the Title should also be provided in Turkish. For case reports submitted by foreign authors outside Turkey, the translation of these sections will be carried out by the Editor-in-Chief's Office.

**NOTE 1:** Case reports that include video images have a better chance of publication.

**NOTE 2:** For case reports to be taken under review, the first author must subscribe to the Anatolian Journal of Cardiology for one year. This requirement is only for the initiation of the preliminary assessment process. It does not guarantee acceptance for publication or evaluation. The manuscript of the subscriber will be evaluated strictly in accordance with the journal's criteria. Being a subscriber does not guarantee priority in terms of evaluation or guarantee publication. The VAT-inclusive subscription fee is 240 TL and the Anatolian Journal of Cardiology must be contacted for subscription procedures.

### • Original Image

Impressive and rare images that reflect significant findings based on clinical science, shed light on fundamental mechanisms of diseases, emphasize abnormalities or introduce new treatment methods are accepted for publication.

- Title
- Main Text: It should not include subheadings and it should be limited to 250 words.
- Tables, Figures and Images: They should be provided after the main text according to their order of appearance in the text and should be limited to two.
- Abstract, Keywords and References are not included.
- For original images submitted by Turkish authors or from Turkey, the Title should also be written in Turkish. For images submitted by foreign authors outside Turkey, the translation of this section into Turkish will be carried out by the publisher.

**NOTE 1:** Those manuscripts with video images have a better chance of publication.

**NOTE 2:** Manuscripts prepared in accordance with original image criteria are published only as an e-page at the journal's website <http://www.anatoljcardiol.com>.

**NOTE 3:** For original image manuscripts to be taken under review, the first author must subscribe to the Anatolian Journal of Cardiology for one year. This requirement is only for the initiation of the preliminary assessment process. It does not guarantee acceptance for publication or evaluation. The manuscript of the subscriber will be evaluated strictly in accordance with the journal's criteria. Being a subscriber does not guarantee priority in terms of evaluation or guarantee publication. The VAT-inclusive subscription fee is 240 TL and the Turkish Society of Cardiology must be contacted for subscription procedures.

### • Letter to the Editor

Letters to the Editor aim to discuss the importance of a manuscript previously published in the journal. This type of manuscripts should also include a comment on the published manuscript. Moreover, articles on topics of interest to readers within the scope of the journal, especially on educational issues, can be published in the format of a Letter to the Editor.

- Title
- Main Text: It should not include subheadings and it should be limited to 500 words.
- References: The reference list should follow the main text and the number of references should be limited to five. The volume, year, issue, page numbers, authors' names and title of the manuscript should be clearly stated, included in the list of references and cited within the text.
- Abstract, Keywords, Tables, Figures and Images, and other visuals are not included.
- For manuscripts submitted by Turkish authors or from Turkey, the Title should also be written in Turkish. For manuscripts submitted by foreign authors outside Turkey, the translation of this section into Turkish will be carried out by the publisher.

### • Publication Ethics

These articles include current information on research and publication ethics and also cases of ethical violation.

- Title
- Main Text: It should not exceed 900 words.
- References: The reference list should follow the main text and the number of references should be limited to 10.
- Tables, Figures and Images: They should be placed after the reference list according to their order of appearance in the text and limited to two.
- Abstract and Keywords are not included.
- For articles submitted by Turkish authors or from Turkey, the Title should also be written in Turkish. For articles submitted by foreign authors outside Turkey, the translation of this section into Turkish will be carried out by the publisher.

### • Scientific Puzzle

Images obtained directly or on operation, visuals revealed through EKG and/or imaging methods, and macroscopic-microscopic anatomical, pathological findings of attention-grabbing and rare cases can be published. Unlike original images, the diagnosis and outcome of the case and image are hidden at the beginning in diagnostic puzzles. Four multiple-choice questions are prepared. In the following pages of the journal, the correct answer in terms of precise diagnosis and outcome is given with an explanation and didactic images and then discussed. The Editor-in-Chief will convert suitable images into the format of a diagnostic puzzle with the authors' permission.

- Title
- Main Text: It should not exceed 500 words.
- References: The reference list should follow the main text and be limited to a maximum of three.
- Tables, Figures and Images: They should be placed after the reference list according to their order of appearance in the text and should be limited to five.
- Abstract and Keywords should not be included

- For diagnostic puzzles submitted by Turkish authors or from Turkey, the Title should also be provided in Turkish. For diagnostic puzzles submitted by foreign authors outside Turkey, the translation of this section into Turkish will be carried out by the publisher.

#### • Miscellaneous

- This type of manuscript covers important events and obituaries.
- Title
- Main Text: It should not exceed 1000 words.
- References: The reference list should follow the main text and the number of references should be limited to 10.
- Tables, Figures and Images: They should be placed after the reference list according to their order of appearance in the text and should be limited to five.
- Abstract and Keywords should not be included.
- For manuscripts submitted by Turkish authors or from Turkey, the Title should also be provided in Turkish. For manuscripts submitted by foreign authors outside Turkey, the translation of this section into Turkish will be carried out by the publisher.

#### B. References

- References should be numbered in the order in which they are cited within the main text.
  - Only manuscripts published or accepted for publication should be cited.
  - Recent publications related to the topic of the manuscript should be reviewed.
  - References that are inaccessible and not indexed in any database should not be cited.
  - The titles of journals should be abbreviated in accordance with (Patrias K. Citing medicine: the NLM style guide for authors, editors, and publishers [Internet]. 2<sup>nd</sup> ed. Wendling DL, technical editor. Bethesda (MD): National Library of Medicine (US); 2007 - [updated 2011 Sep 15; cited Year Month Day].
  - For references with six and fewer authors, all authors should be listed. For references with more than six authors, the first six authors should be listed, followed by 'et al'.
- The style and punctuation of the references should be formatted as in the following examples.

**Journal:** Muller C, Buttner HJ, Peterson J, Roskomun H. A randomized comparison of clopidogrel and aspirin versus ticlopidine and aspirin after placement of coronary artery stents. *Circulation* 2000; 101: 590-3.

**Book Chapter:** Sherry S. Detection of thrombi. In: Strauss HE, Pitt B, James AE, editors. *Cardiovascular Medicine*. St Louis: Mosby; 1974. p.273-85.

**Book with Single Author:** Cohn PF. Silent myocardial ischemia and infarction. 3<sup>rd</sup> ed. New York: Marcel Dekker; 1993.

**Editor(s) as author:** Norman IJ, Redfern SJ, editors. *Mental health care for elderly people*. New York: Churchill Livingstone; 1996.

**Conference Paper:** Bengissson S, Sothemin BG. Enforcement of data protection, privacy and security in medical informatics. In: Lun KC, Degoulet P, Piemme TE, Rienhoff O, editors. *MEDINFO 92. Proceedings of the 7<sup>th</sup> World Congress on Medical Informatics*; 1992 Sept 6-10; Geneva, Switzerland. Amsterdam: North-Holland; 1992. p.1561-5.

**Scientific or Technical Report:** Smith P, Golladay K. Payment for durable medical equipment billed during skilled nursing facility stays. Final report. Dallas (TX) Dept. of Health and Human Services (US). Office of Evaluation and Inspections: 1994 Oct. Report No: HHSIGOE 169200860.

**Thesis:** Kaplan SI. Post-hospital home health care: elderly access and utilization (dissertation). St Louis (MO): Washington Univ. 1995.

**Manuscripts accepted for publication but not published yet:** Leshner AI. Molecular mechanisms of cocaine addiction. *N Engl J Med* In press 1997.

**Epub ahead of print articles:** Aksu HU, Ertürk M, Gül M, Uslu N. Successful treatment of a patient with pulmonary embolism and biatrial thrombus. *Anatol J Cardiol* 2012 Dec 26. doi:10.5152/akd.2013.062. [Epub ahead of print]

**Manuscript published in electronic format:** 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: URL: <http://www.cdc.gov/n.cidod/EID/cid.htm>.

#### C. Special Terms and Conditions

- For double-blinded peer-review process, the names of the corresponding author and other authors, their affiliations and any information on the study centres should not be included in any part of the submitted manuscripts and images, except the Title Page. This information should be added to the relevant section of the online submission system and included in the Title Page.
- Pharmaceutical products should be written with their generic names and brand and company names, city and country should be specified for medical equipment and devices.

#### 3. Tables, Graphs and Figures

- Tables, Graphs, Figures and other visuals should be numbered in the order of their citation within the text and names of patients, doctors and institutions should not be disclosed.
- Tables should be prepared in a Microsoft Office Word document using the command 'Insert Table' and inserted at the end of the references in the main text.
- Tables should not be submitted in JPEG, TIFF or other visual formats. For microscopic images, the magnification ratio and staining technique used should be specified in addition to figure legends.

- All visuals should have a high resolution (minimum 300 dpi).
- The thickness of the lines in graphs should be sufficient to minimize loss of quality if size reduction is needed during the printing process. The width of the graphs should be 9 cm or 18 cm. Drawings should be performed by professionals. No grey colours should be used.
- Abbreviations should be explained in alphabetical order at the bottom of the tables, graphs and figures
- Roman numbers should be avoided in tables and figures within the text and their titles.
- Decimal numbers used in text, tables and figures should be separated by commas in Turkish sections and by dots in English sections.
- Tables should be easily understandable and should not repeat the data in the main text.
- In addition to the pictures included in case reports and original images, video and movie images are published on the journal's website. These images should be prepared in MPEG format with a maximum size of 2 MB. They should be submitted to the journal with the manuscript documents. The names of patients, doctors, institutions and places should be omitted from all documents.

**NOTE:** All visuals in the manuscripts are printed in black and white without charge. However, 300 TL per article must be paid if colour is required. The Editor-in-Chief's Office of the Anatolian Journal of Cardiology should be contacted for payment.

#### EVALUATION AND PUBLICATION

- The main text submitted to the journal must be in English. Manuscripts written in other languages are not accepted. Citation potential is higher for manuscripts in English.
- The Editor-in-Chief's Office checks the conformity of the manuscript with the journal's general guidelines before sending it to associate editors and reviewers. Any manuscripts not prepared in accordance with the journal's guidelines will be returned for revision. The evaluation period is limited to 21 days. If revision is requested, authors should submit their revised manuscripts within 24 days. Manuscripts and revisions should be submitted through the online manuscript submission system at the website <http://www.anatoljcardiol.com>. Manuscripts sent by e-mail will not be accepted.
- Manuscripts are evaluated in accordance with the principles of double-blinded peer review. Of the submitted manuscripts, those considered to be suitable are subjected to preliminary evaluation by the Editor-in-Chief's assistants in terms of style, format, etc. and by the Editor-in-Chief in terms of their content. Manuscripts considered to be scientifically adequate are assigned to four reviewers. These reviewers are independent experts and members of the editorial board who have published internationally on the topic of the manuscript. Research articles, systematic reviews and meta-analyses are also evaluated by the Editor-in-Chief's statistician counsellors in addition to peer review. When needed, the manuscripts are scanned by the Editor-in-Chief's Office using the iThenticate program for determination of plagiarism and non-ethical situations. Also, all manuscripts are reviewed and edited for compliance with the rules of English grammar. All contributing authors of a manuscript accepted for publication are deemed to have accepted the right of editors to make corrections provided that no fundamental change is made to the basic meaning of the original text. Manuscripts not accorded priority for publication by the Editor-in-Chief, Editor, Associate Editors and Referees are rejected.
- The retraction requests of the manuscripts close to the final decision in evaluation process, without any reasonable explanation (not contrary to the Publication Ethics) is considered in the scope of rejection decision. Manuscripts that are not revised and resubmitted within the specified time and fail to notify the journal accordingly will be rejected.
- Once a manuscript is accepted for publication, addition to the author list, removal from the author list and order change cannot be effected.
- Manuscripts accepted for publication are prepared as 'Epub ahead of print articles' and published with an assigned DOI on the journal website <http://www.anatoljcardiol.com>.
- Information on the latest status of manuscripts submitted for evaluation and other information about the journal are available on the website <http://www.anatoljcardiol.com>. Contact details for the Editor-in-Chief's Office and the publisher are given below.

**Owner :** Turkish Society of Cardiology  
**Address :** Çobançeşme Sanayi Cad., No: 11, Nish İstanbul, A Blok, No: 47-48, 34196, Yenibosna, Bahçelievler, İstanbul, TURKEY  
**Phone :** +90 212 221 17 30 / +90 0212 221 17 38  
**Fax :** +90 212 221 17 54  
**E-mail :** [tkd@tkd.org.tr](mailto:tkd@tkd.org.tr)

**Editor-in-Chief: Prof. Bilgin Timuralp**  
**Address :** ESOĞU Tıp Fakültesi, Merkezi Derslikler, Kat: 3, No: 1, 26480, Meşelik, Eskişehir, TURKEY  
**Phone :** +90 222 229 15 65 / +90 538 480 43 30  
**Fax :** +90 222 229 15 85  
**E-mail :** [info@anatoljcardiol.com](mailto:info@anatoljcardiol.com)

**Publisher : KARE PUBLISHING**  
**Address :** Altayçeşme Mah., Atatürk Caddesi, Engin Sokak, No: 3, Kat: 4, Daire: 20, 34843 Maltepe, TURKEY  
**Phone :** +90 216 550 61 11  
**Fax :** +90 216 550 61 12  
**E-mail :** [kareyayincilik@gmail.com](mailto:kareyayincilik@gmail.com)

**CONTENTS****EDITORIAL**

- ▶ Two publications 419  
Zeki Öngen; Istanbul-Turkey

**INVITED EDITORIAL**

- ▶ What is new in ACC/AHA 2017 focused update of valvular heart disease guidelines 421  
Mehmet Özkan; Istanbul, Ardahan-Turkey

**META-ANALYSIS**

- ▶ A systematic review of 3-D printing in cardiovascular and cerebrovascular diseases 423  
Zhonghua Sun, Shen-Yuan Lee; Western Australia-Australia, Taichung-Taiwan

**HOT TOPIC**

- ▶ Algorithm for predicting CHD death risk in Turkish adults: conventional factors contribute only moderately in women 436  
Altan Onat, Günay Can, Ayşem Kaya, Muhammed Keskin, Mert İ. Hayıroğlu, Hüsniye Yüksel; Istanbul-Turkey


**ORIGINAL INVESTIGATIONS**

- ▶ Major bleeding events in Jordanian patients undergoing percutaneous coronary intervention (PCI): Incidence, associated factors, impact on prognosis, and predictability of the CRUSADE bleeding risk score. Results from the First Jordanian PCR (PCR1) 445  
Mohamad Jarrah, Ayman Hammoudeh, Osama Okkeh, Yousef Khader, Sahem Gharaibeh, Laith Nasser, Amro Rasheed, Ayed Al-Hindi, Mohammad Mohealdeh, Haneen Kharabsheh, Hanan Abunimeh, Enas Hijjeh, Lina Tashman, Delia Omar, Nadeen Kufoof, on behalf of the First Jordanian PCI Registry Investigators Group; Irbid, Amman-Jordan
- ▶ Ethyl acetate fraction of *Allium hirtifolium* improves functional parameters of isolated hearts of diabetic rats 452  
Sara Khaleghi, Mahvash Hesari, Aliashraf Godini, Dareuosh Shackebaei, Ali Mostafaie; Kermanshah-Iran
- Editorial Comment: Medicinal plants for management of diabetes: alternative or adjuvant? 460  
Alireza Shirpoor; Urmia-Iran
- ▶ Directly ventricular septal defect closure without using arteriovenous wire loop: Our adult case series using transarterial retrograde approach 461  
Nihat Pekel, Ertuğrul Ercan, Mehmet Emre Özpelit, Ferhat Özyurtlu, Akar Yılmaz, Caner Topaloğlu, Serkan Saygı, Serkan Yakan, İstemihan Tengiz; İzmir, Manisa-Turkey
- Editorial Comment: Directly ventricular septal defect closure without using arteriovenous wire loop: Our adult case series using transarterial retrograde approach 469  
Sedigheh Saedi, Tahereh Saedi; Tehran-Iran
- ▶ A practical guide for building a highway between atria during transseptal puncture without radiation 470  
Yuan Yuan, Deyong Long, Caihua Sang, Ling Tao, Jianzeng Dong, Changsheng Ma; Xi'an, Beijing-China
- Editorial Comment: Radiationless transseptal puncture 473  
Jakub P. Hołda; Cracow-Poland

**CONTENTS**

- ▶ Left ventricular twist was decreased in isolated left bundle branch block with preserved ejection fraction 475  
Sabiye Yılmaz, Harun Kılıç, Mustafa Tarık Ağaç, Nurgül Keser, Efe Edem, Saadet Demirtaş, Mehmet Bülent Vatan, Ramazan Akdemir, Hüseyin Gündüz; Sakarya, İzmir-*Turkey*
- Editorial Comment: Left ventricular twist in patients with left bundle branch block: Missing the obvious in electromechanical coupling 481  
Alaa Mabrouk Salem Omar, Piedad Lerena Saenz; Cairo-*Egypt*, New York-*USA*, Santander-*Spain*
- ▶ The relationship of micronucleus frequency and nuclear division index with coronary artery disease SYNTAX and Gensini scores 483  
Emrah İpek, Emrah Ermiş, Handan Uysal, Halit Kızılet, Selami Demirelli, Erkan Yıldırım, Sedat Ünver, Bircan Demir, Nergiz Kızılet; Erzurum, İstanbul-*Turkey*



**CASE REPORT**

- ▶ An adult case of single atrium diagnosed using three-dimensional echocardiography  490  
Bernas Altıntaş, Barış Yaylak, Erkan Baysal; Diyarbakır-*Turkey*

**LETTERS TO THE EDITOR**

- ▶ Tp-e interval and Tp-e/QTc ratio: new choices for risk stratification of arrhythmic events in patients with hypertrophic cardiomyopathy 493  
Yaniel Castro-Torres; Villa Clara-*Cuba*
- ▶ A 31-year-old patient without the use of warfarin and with an aortic mechanical valve 494  
Mihriban Yalçın, Hakan Özkan, Osman Tiryakioğlu; Ordu, Bursa-*Turkey*
- ▶ Issues related to reliability of HRV analysis and effect of spontaneous saliva swallowing on HRV 495  
Metin Yıldız, Serian Doma; Ankara-*Turkey*

**E-PAGE ORIGINAL IMAGES**

- ▶ Acute aortic regurgitation in a bicuspid aortic valve due to the rupture of an anomalous cord  E-5  
Hiroyuki Watanabe, Mai Shimbo, Kenji Iino, Hiroshi Yamamoto, Hiroshi Ito; Akita-*Japan*
- ▶ A young girl presenting with cardiac thrombus: An unusual complication of inflammatory bowel disease  E-6  
Muhittin Demirel, Erdoğan Sökmen, Emrah Acar, Serkan Sivri; Kırşehir, Gümüşhane-*Turkey*