



# Turkish Thoracic Journal

Official Journal of the Turkish Thoracic Society

SUPPLEMENT 1 APRIL 2015 VOLUME

# 16

## Kömür Madenlerinde Solunum Acilleri

Konuk Editörler  
Peri Arbak  
Metin Akgün



Turkish Thoracic Journal Nisan 2015 özel sayının Türkçe'ye çevrilmiş versiyonudur.



# Turkish Thoracic Journal

Official journal of the Turkish Thoracic Society

## EDITORS

### Hasan BAYRAM

Department of Chest Diseases, Faculty of Medicine, University of Gaziantep, Gaziantep, Turkey

### Öner DİKENSÖY

Department of Chest Diseases, Faculty of Medicine, University of Gaziantep, Gaziantep, Turkey

## ASSOCIATE EDITORS

### Metin AKGÜN

Department of Chest Diseases, Faculty of Medicine, Atatürk University, Erzurum, Turkey

### Feza BACAĞÖZÜ

Department of Chest Diseases, Faculty of Medicine, Ege University, İzmir, Turkey

### Mehmet BAYRAM

Department of Chest Diseases, Faculty of Medicine, Bezmialem Vakıf University, İstanbul, Turkey

### Figen DEVECİ

Department of Chest Diseases, Faculty of Medicine, Fırat University, Elazığ, Turkey

### İsmail HANTA

Department of Chest Diseases, Faculty of Medicine, Çukurova University, Adana, Turkey

### Özge YILMAZ

Department of Pediatrics, Faculty of Medicine, Celal Bayar University, Manisa, Turkey

## BIOSTATISTICAL CONSULTANT

### Ahmet Uğur DEMİR

Department of Chest Diseases, Faculty of Medicine, Hacettepe University, Ankara, Turkey

## PUBLICATION COORDINATOR

### Oğuz KILINÇ

Department of Chest Diseases, Faculty of Medicine, Dokuz Eylül University, İzmir, Turkey

Türk Toraks Derneği adına sahibi / Owner on behalf of the Turkish Thoracic Society: Ayşe Arzu Yorgancıoğlu • Sorumlu Yazı İşleri Müdürü / Responsible Manager: Zuhar Karakurt • Yayın türü / Publication Type: Yerel süreli / Local periodical • Basım yeri / Printed at: ADA Ofset, 2. Matbaacılar Sit. E Blok No: (ZE2) 1. Kat Topkapı, İstanbul, Turkey (+90 212 567 12 42) • Basım tarihi / Printing Date: Mart 2015 / March 2015 • Türk Toraks Derneği tarafından yayınlanmaktadır / Published by Turkish Thoracic Society, Turan Güneş Bulvarı Koyunlu Sitesi No: 175/19 Oran-Ankara, Turkey (+90 312 490 40 50)



Publisher  
İbrahim KARA

Publication Director  
Ali ŞAHİN

Deputy Publication Director  
Gökhan ÇİMEN

Publication Coordinators  
Esra GÖRGÜLÜ  
Ebru MUTLU  
Betül ÇİMEN  
Saniye İNGİN  
Nihan GÜLTAN  
İrem Naz GÜVEL  
Dilşad GÜNEY

Finance Coordinator  
Veysel KARA

Project Coordinators  
Hakan ERTEN  
Zeynep YAKIŞIRER

Graphics Department  
Ünal ÖZER  
Neslihan YAMAN  
Merve KURT

Contact

Address: Büyükdere Cad. No: 105/9 34394  
Mecidiyeköy, Şişli-İstanbul

Phone: +90 212 217 17 00

Fax: +90 212 217 22 92

E-mail: info@avesyayincilik.com



# Turkish Thoracic Journal

Official journal of the Turkish Thoracic Society

## INTERNATIONAL EDITORIAL BOARD

### Ian M. Adcock

Cell and Molecular Biology Airways Disease Section, National Heart and Lung Institute, Imperial College London, United Kingdom

### Piergiuseppe Agostoni

Department of Clinical Sciences and Community Health, Cardiovascular Section, Università di Milano, Milano, Italy

### M. Selim Arcasoy

Pulmonary, Allergy, and Critical Care Division, Department of Medicine, Columbia University New York, USA

### Philippe Astoul

Thoracic Oncology - Pleural Diseases - Interventional Pulmonology, Hôpital Nord - Chemin des Bourrely, Marseille, France

### Ülkü Bayındır

Retired Faculty Member, Faculty of Medicine, Ege University, İzmir, Turkey

### Dominique MA Bullens

Department of Immunology and Microbiology, KU Leuven Laboratory of Pediatric Immunology Division of Pediatrics, Leuven, Belgium

### Richard Casaburi

Rehabilitation Clinical Trials Center, Los Angeles Biomedical Research Institute at Harbor-UCLA Medical Center, Torrance, California, USA

### Tuğrul Çavdar

Retired Faculty Member, Faculty of Medicine, İstanbul University, İstanbul, Turkey

### Turgay Çelikel

Department of Chest Diseases, Faculty of Medicine, Marmara University, İstanbul, Turkey

### Tansu Ulukavak Çiftçi

Department of Chest Diseases, Gazi University Faculty of Medicine, Ankara, Turkey

### Lütfi Çöplü

Department of Chest Diseases, Faculty of Medicine, Hacettepe University, Ankara, Turkey

### Çağlar Çuhadaroğlu

Acıbadem Maslak Hospital, İstanbul, Turkey

### Andrew J. Ghio

US Environmental Protection Agency Chapel Hill, North Carolina, USA

### James E. Hansen

St. John's Cardiovascular Research Center, Los Angeles Biomedical Research Institute at Harbor- University of California at Los Angeles, Torrance, CA, USA

### İlhan İnci

University Hospital Zurich, Department of Thoracic Surgery, Zurich, Switzerland

### Oya İtil

Department of Chest Diseases, Faculty of Medicine, Dokuz Eylül University, İzmir, Turkey

### A. Fuat Kalyoncu

Department of Chest Diseases, Faculty of Medicine, Hacettepe University, Ankara, Turkey

### Fazilet Karakoc

Department of Child Chest Diseases, Marmara University Pendik Training and Research Hospital, İstanbul, Turkey

### Ali Kocabaş

Department of Chest Diseases, Faculty of Medicine, Çukurova University, Adana, Turkey

### Emel Kurt

Department of Chest Diseases, Faculty of Medicine, Osmangazi University, Eskişehir, Turkey

### Richard Light

Division of Allergy, Pulmonary, Critical Care, Vanderbilt University Medical Center, Nashville, USA

### Atul Malhotra

Pulmonary and Critical Care, University of California San Diego, La Jolla, California, USA

### Muzaffer Metintaş

Department of Chest Diseases, Faculty of Medicine, Osmangazi University, Eskişehir, Turkey

### Zeynep Mısırlıgil

Department of Chest Diseases, Faculty of Medicine, Ankara University, Ankara, Turkey

### Nesrin Moğulkoc

Department of Chests Diseases, Ege University Faculty of Medicine, İzmir, Turkey

### Dilşad Mungan

Department of Chest Diseases, Faculty of Medicine, Ankara University, Ankara, Turkey

### Gökhan M. Mutlu

Division of Pediatric Critical Care Medicine, Northwestern University, Chicago, USA

### Gül Öngen

Department of Chest Surgery, Cerrahpaşa Faculty of Medicine, İstanbul University, İstanbul, Turkey

### Kent E. Pinkerton

University of California, Davis, Center for Health and the Environment, Davis, USA

### Kannan Ramar

Division of Pulmonary and Critical Care Medicine, Center for Sleep Medicine, Mayo Clinic, Rochester, MN, USA

### Joseph Roca

Instituto de Biología Molecular de Barcelona, CSIC, Baldiri Reixac, Barcelona, Spain

### Israel Rubinstein

Section of Pulmonary, Critical Care, Sleep and Allergy Medicine, Department of Medicine, College of Medicine, University of Illinois at Chicago, Chicago, Illinois, USA

### Abdullah Sayiner

Department of Chest Diseases, Faculty of Medicine, Ege University, İzmir, Turkey

### Z. Toros Selçuk

Department of Chest Diseases, Faculty of Medicine, Hacettepe University, Ankara, Turkey

### Nadja Triller

Department of Pulmonary Medicine, University Pulmonary Clinic Golnik, Golnik, Slovenia

### Haluk Türktaş

Department of Chest Diseases, Faculty of Medicine, Gazi University, Ankara, Turkey

### E. Sabri Uçan

Department of Chest Diseases, Faculty of Medicine, Dokuz Eylül University, İzmir, Turkey

### Karlman Wasserman

Respiratory and Critical Care Physiology and Medicine, Los Angeles Biomedical Research Institute Harbor-UCLA Medical Center, Torrance, California, USA

### Mark Woodhead

Honorary Clinical Professor of Respiratory Medicine, Department of Respiratory Medicine, Manchester Royal Infirmary, Manchester, England

### Adnan Yılmaz

Department of Chest Diseases, Süreyyapaşa Chest Diseases and Chest Surgery Education and Research Hospital, İstanbul, Turkey



## AIMS AND SCOPE

Turkish Thoracic Journal is the conceptually scientific, open access and official publication of the Turkish Thoracic Society. The publication language is both Turkish and English and it is an international journal based on independent, unbiased, and double-blind peer-review principles.

Turkish Thoracic Journal started its publication life following the mergence of two seperate journals which are published under the titles "Turkish Respiratory Journal" and "Toraks Journal" until 2007. Archives of both journals were passed on to the Turkish Thoracic Journal.

The aim of Turkish Thoracic Journal is to publish pulmonary disease-related clinical, experimental and epidemiologic studies that are scientifically highly qualified. Additionally, reviews, editorials, letters to the editor, and case reports are also accepted. Reports presented in meetings organized by the Turkish Thoracic Society Head Office or national and international consensus reports are published as supplements. The journal is published 4 times annually, in January, April, July and October. The target-groups are chest diseases physicians, thoracic surgeons, internal medicine doctors and practitioners interested in pulmonary diseases.

Turkish Thoracic Journal is indexed in EMBASE, Scopus, EBSCO, CINAHL, Gale/Cengage Learning, ProQuest, Index Copernicus, DOAJ and Tübitak/Ulakbim Turkish Medical Database.

### **Subscription Procedures, Permissions, Advertisement**

Turkish Thoracic Journal is distributed free of charge to chest diseases specialists, academicians and assistants who are working in our country. Abstracts and full texts of the articles published in this journal are issued online at [www.toraks.dergisi.org](http://www.toraks.dergisi.org). Applications related to subscriptions, print permissions and advertisements should refer to the Turkish Thoracic Society.

Address: Turan Güneş Bulvarı, Koyunlu Sitesi No: 175/19

Oran-Ankara, Turkey

Phone: +90 312 490 40 50

Fax: +90 312 490 41 42

E-mail: [toraks@toraks.org.tr](mailto:toraks@toraks.org.tr)

### **Instructions for Authors**

Instructions for authors are available on journal pages and in the following link: [www.toraks.dergisi.org](http://www.toraks.dergisi.org)

### **Material Disclaimer**

Any opinion or statement enclosed in the material published by the Turkish Thoracic Journal solely represents the views of the author(s). The Turkish Thoracic Society, Turkish Thoracic Journal, Editor, Editorial Committee and Publisher do not accept any liability.

Acid-free paper is used in our journals.



## INFORMATION FOR THE AUTHORS

1. The Turkish Thoracic Journal is a periodical of the Turkish Thoracic Society and 4 issues are published annually.

2. The aim of the journal is to convey scientific developments in thoracic diseases and surgery, and to create a dynamic discussion platform about pulmonary diseases. With this intent, the journal accepts articles from all related scientific areas that address thoracic diseases and cell biology, epidemiology, immunology, pathophysiology, thoracic imaging, pediatric chest diseases, environmental and occupational disorders, intensive care, sleep disorders and thoracic surgery. Clinical and research articles, reviews, statements of agreement or disagreement on controversial issues, national and international consensus reports, abstracts and comments of important international articles, interesting case reports, puzzling cases, writings related to clinical and practical applications, letters to the editor, and editorials are accepted.

Presentations and reports of meetings organized by Turkish Thoracic Society Head Office and its branches can be published as supplements.

3. The publication language of the journal is English.

4. The Editorial Committee has the right of not publishing a manuscript that is not in compliance with the authors' instructions, request revisions from the authors and reediting. Submitted manuscripts are published following the evaluation by at least two reviewers, and approval of the Publication Committee.

5. The submitted manuscripts should not be submitted for publication or published elsewhere. Studies previously announced in the congresses are accepted if this condition is stated. Those who want to withdraw their manuscripts from the journal due to delays or any other reason should submit a written application. No royalties or remuneration will be provided to the author(s) and the author agrees that all publication rights belong to the Turkish Thoracic Society. Scientific and legal responsibilities of the published manuscripts belong to the authors.

6. Reviews have been written only by experts on the subjects, upon invitation since January 2004.

7. The content of the submitted manuscripts should conform to the criteria stated in *ICMJE-Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals* (updated in December 2013-<http://www.icmje.org/icmje-recommendations.pdf>).

8. Turkish Thoracic Journal requests the authors to comply with research and publication ethics. The principles outlined in the Declaration of Helsinki should be followed in the absence of formal ethics review committees. For human studies, the means by which informed consent was obtained from participants (oral or written) should be stated in the "Material and Methods" section. Declaration of Helsinki can be found at [www.wma.net/e/policy/pdf/17c.pdf](http://www.wma.net/e/policy/pdf/17c.pdf). In experimental animal studies, ethical considerations within "The guide for the care and use of laboratory animals" ([www.nap.edu/catalog/5140.html](http://www.nap.edu/catalog/5140.html)) should be followed. Copyright informa-

tion required for the figures, pictures and other visuals should be provided by the authors.

9. The authors are asked to declare any financial relations concerning the study. All authors should state that they scientifically contributed to and took responsibility in the study and declare if there is any conflict of interest. The authors should acknowledge and provide information on grants, contracts or other financial support of the study provided by any foundations and institutions or firms.

10. Research articles should not exceed 3500 words and 35 references. Case reports should not exceed 1500 words and 10 references.

11. Simultaneously with the submission of manuscripts, the "Author Agreement Form" signed by all contributing authors should be sent to the Turkish Thoracic Journal Editorial Office via fax or e-mail. Otherwise, submitted manuscripts will not be taken into consideration.

12. In order to proceed without delay, all submitted manuscripts should comply with the instructions specified below:

a. Articles should be typed double-spaced using Times New Roman style and 12 fonts and should have 3 cm margins on the sides, top and bottom of each page. Page numbers should be placed at the mid-bottom of each page.

b. Articles and reviews should be prepared in accordance with the instructions below:

The first page should include the title of the article in English (should not exceed 90 characters) and the running title in English (should not exceed 45 characters).

The second page should include English abstract that do not exceed 250 words. A structured abstract with Objectives, Material and Methods, Results, and Conclusion sections should contain the aim of the study, main results of the study, and a brief conclusion. The above mentioned structure does not apply to the case reports and reviews; a short abstract of no more than 200 words is required.

At least three key words in English should be placed right after the abstract. Key words should comply with the Medical Subject Headings: MeSH. Medical Subject Headings (MeSH) which can be found at [www.nlm.nih.gov/mesh/MBrowser.html](http://www.nlm.nih.gov/mesh/MBrowser.html).

Third page and the subsequent pages should include the main text.

In review articles, subtitles should be used in order to provide a better understanding on the subject. In a review article, it would be beneficial to provide different sections such as the context of the problem, historical information, basic knowledge, methodology, animal and human experiments, discussion, conclusion, suggestions and future studies.

Research articles should include separate sections for Introduction, Material and Methods, Results, Discussion. Pharmaceutical products can be mentioned either with their generic or commercial names (generic names are preferred). Commercial names should be written with capital letters, followed by the company and its city

in parenthesis. Acknowledgements, references, tables and figure legends should follow the main text. Tables should be presented at the end of the text and each on a separate page.

c. The "Acknowledgements" section should be placed at the end of the text before the references and should not exceed one paragraph.

d. References, tables and figures should be placed in the order of appearance in the text. References should be mentioned in brackets and at the end of the sentences. The titles of journals must be abbreviated according to the style used in Index Medicus. Full titles should be used for those that are not cited in Index Medicus. When more than two consecutive references are used, only the first and last reference numbers should be written [such as: 3-9]. When there is more than four authors within the identification of the referred article, only the names of the first three authors should be used followed by "et al.". If an article has four or less authors, all names should be used. Research articles and reviews should not exceed 35 references. Case reports should not exceed 10 references. References should be written according to the Index Medicus and in Vancouver Style as illustrated below.

### Journal Articles

#### Standard Journal Article

Surname of the author(s), first letter of the author's name, title of the article, name of the journal (abbreviated according to Index Medicus), year (:) volume number (:) first and last pages (.)

Vega KJ, Pina I, Krevsky B. Transplantation is associated with an increased risk for pancreatobiliary disease. *Ann Intern Med* 1996;124:980-3.

#### Supplementary

QF. Risk assessment of nickel carcinogenicity and occupational lung cancer. *Environ Health Perspect* 1994;102 (Suppl 1): 2755-82.

#### Summary Format (Letter, Summary and Editorial)

Enzensberger W, Fischer PA. Metronome in Parkinson's disease (Letter). *Lancet* 1996;347:1337.

### Books and Other Monographs

#### Book

Surname of the author(s), first letter of author's name (.), title of the book (.), number of press or volume (.) city that it is published (:) publisher, publication year (:) page (.)

#### With author

Ringsven MK, Bond D. Gerontology and leadership skills for nurses. 2<sup>nd</sup> ed. Albany, NY: Delmar, 1996:56.

#### With editor

Norman IJ, Redfern SJ, eds. Mental Health Care for Elderly People. New York: Churchill Livingstone, 1996: 67-9.

#### Book chapter

Surname of the section author(s), the first letter of authors' name (.) the title of the section (.) In (:) the surname of the author(s) of the book, the first letter of authors' name (.) the title of the book (.) city that it is published (:) publisher, publication year (:) first and last pages (.)

Phillips SJ, Whistant JP. Hypertension and stroke. In: Laragh JH, Brenner BM, eds. Hypertension: Pathophysiology, diagnosis and management. 2<sup>nd</sup> ed. New York: Raven Pr, 1995:466-78.

### Congress Abstract Book

Bengtsson S, Solheim 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 7th World Congress on Medical Informatics; 1992 Sep 6-10; Geneva, Switzerland. Amsterdam: North-Holland; 1992. p. 1561-5.

### Unpublished Resources (In Press)

Leshner AI. Molecular mechanisms of cocaine addiction. *N Engl J Med*. In press 1997.

### Congress Presentation

Smith J. New agents for cancer chemotherapy. Presented at the Third Annual Meeting of the American Cancer Society, 13 June 1983, New York.

### Thesis

Kaplan SJ. Post-hospital home health care: the elderly's access and utilization [Thesis]. St Louis (MO): Washington Univ; 1995.

### Online Reports

World Medical Association. Declaration of Helsinki: ethical principles for medical research involving human subjects. [www.wma.net/e/policy/pdf/17c.pdf](http://www.wma.net/e/policy/pdf/17c.pdf). Updated September 10, 2004. Accessed July 9, 2008.

For typing of any other type of reference, please go to [www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=citmed.TOC&depth=2](http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=citmed.TOC&depth=2).

**e. Tables:** Each table should be typed on a separate page and table's entries should be double-spaced. Tables should be numbered with arabic numeral(s) and cited in the order of appearance in the text. A brief title for the table should be written above the table.

**f. Figures:** All figures should be high-quality (at least 300 dpi resolutions) in .jpeg or .jpg format, and should be provided in black and white. If providing a better understanding of the topic, colored figures will be accepted in limited number. For each manuscript, six figures at most will be accepted. Figures should be numbered with Arabic numeral(s) in order of appearance in the text. The type of the dye that was used, magnification scales, and internal scale bar should be stated for microscopic photographs. A centimeter template should be added for pathologic specimens. Ethical values should be protected in any patient-related photograph or graphs. If the identity of the patient can be revealed by the provided photographs and graphs, a written consent should be requested from the patient. The figures should be cited in parenthesis with their respective numbers within the main text. All figure legends should be on a separate page after references and tables. A written permission is required for reproduced figures.

**g. Video:** Videos submitted for online broadcasting purposes, on the internet site of Turkish Thoracic Journal, are accepted. The video dossier should be maximum 3MB in size and in .mpeg or .vmf format.

**h. Case reports** should contain sections for English title, English running title, English abstract, keywords, Introduction, Case Presentation and Discussion. They should include new cases or imply clear messages. All submitted case reports will be first reviewed by the editorial committee and those that do not include new cases

and/or do not imply clear messages could be rejected without sending it for arbitration.

**i.** In puzzling case reports, a short introduction should be followed by the description of the problem, presentation of clue photos and figures, definite diagnosis, and a discussion section where the diagnosis is discussed and educational messages are emphasized.

**j.** Disagreement/agreement articles should not exceed three pages, and clinical practice articles should not exceed three pages including text, figures, images and references.

**k.** The section for the "Letters to the Editor" should be formatted shortly and concisely, without any summary, and should be restricted in the number of references since it is mainly written to provide support or criticism over previously published articles.

**l.** Abbreviations should be written in the accepted international format and under parenthesis on the first mention and this abbreviation should be used throughout the text.

## ONLINE SUBMISSION

### Instructions to Authors

Online submission is a two-part and 10-step process.

#### Part 1

Information such as the type of the article, institutions, authors, title, abstract, keywords, and cover letter is entered in the first eight steps.

**Step-1:** The language is selected (Turkish or English).

**Step-2:** The type and category of the article is selected.

**Step-3:** The institutions of the authors are entered in the relevant fields. If all authors are within the same institution, a single entry is enough. Names of the institutions should be written in full.

**Step-4:** The names, surnames and e-mail addresses of the authors are entered in the relevant fields. The corresponding institutions are selected from those provided in the preceding step. The corresponding author should also be stated in this step. Entering a valid e-mail address for the corresponding author is mandatory. However, this is not obligatory for the other authors. Authors' names should be written in full.

**Step-5:** This is the step where the title is entered. If needed, special characters (such as  $\alpha$ ,  $\beta$ ,  $\mu$ ) are available on the table.

**Step-6:** This is the step where the abstract is entered. Abstract should not exceed 200 words for case reports and reviews, and 250 words for research articles. Abstracts for research articles should include the following sections: Introduction, Material and Methods, Results and Conclusion.

**Step-7:** This is the step where the keywords are entered. English keywords should be selected by connecting the MeSH link provided in this window.

**Step-8:** This is the step where information regarding the manuscript's publication in another journal or its presentation in a congress is entered.

## Part 2

**Step-9:** From hereon, the identification of the manuscript has been completed. The main text, video and figures of the article should be submitted in this step. There should be no figures within the text file, except for the tables. For instance, three files should be submitted in this step for a manuscript containing one figure and one graph in the body (a file for text, a file for figure, and a file for graph). Figure and video files should be uploaded first. No figures should be placed in the text file. All images, graphs, and other figures within the manuscript should be uploaded with the names used in the manuscript (such as Fig 1 or Graph 1).

Any of the writing editors can be used for the text file (such as Microsoft Word, Notepad, and WordPad). However, MS Word will be necessary if the text contains a table. **Since all identification details were provided in former steps, the authors' names, institutions, and correspondence address are not required herein.**

### Manuscript Checklist:

- Title (English)
- Running title (English)
- Abstract (English)
- Keywords (English)
- Main text
- References
- Tables with titles
- Figure legends (Captions).

The names of the submitted files should not evoke the name of the author(s) or institution. Submitted text files are made visually compatible through conversion to PDF format one minute following the submission. Therefore, there is no access to the file size information and connection within this short period.

**Step-10:** A control panel, showing the details of the article and including the checklist, appears after submission. It is possible to return to the previous screen by clicking on the "previous" button and make corrections and/or modifications till this step. The submission process can be quitted at any stage and can be resumed. After clicking on the button "Submit manuscript", which appears on the last and 10th step, the manuscript is sent to the journal's management. It is transferred from the section of "Unsubmitted manuscripts" to the section of "Submitted manuscripts". At this stage, there is no possibility of any modification in the manuscript. Authors can view the stage of the submitted manuscript during the editorial review process. If the journal editor requests revision, the manuscript is transferred from the "Submitted manuscripts" section to the "Manuscripts requiring revision" section. In this section, the authors are allowed to make the necessary modifications on the manuscript.



## İÇİNDEKİLER

**S1**

Kömür Madeni Kazaları  
Metin Akgün; Erzurum, Türkiye

---

**S3**

Türkiye’de Kömür Madencilığının Durumu, Devlet ve Özel Sektör, Taşeronlaşma ve Rödövens  
Fatma Evyapan; Denizli, Türkiye

---

**S5**

Türkiye ve Dünyada Kömür Madenlerinin Açılması ve Kazaların Tarihçesi  
Figen Atalay; Zonguldak, Türkiye

---

**S9**

Dünyada ve Türkiye’de Kömür Madeni Kazalarının Nedenleri  
Filiz Çağla Uyanusta Küçük, Aslıhan Ilgaz; Ankara, Türkiye

---

**S15**

Maden Kazalarında Arama Kurtarma: Yapılacaklar ve Yapılmayacaklar  
Hilal Altınöz, İpek Özmen; Kocaeli, İstanbul, Türkiye

---

**S18**

Maden Kazalarında Solunum Acilleri ve Yaklaşım  
İpek Özmen, Emine Aksoy; İstanbul, Türkiye

---

**S21**

Maden Kazalarında İşyeri Hekiminin Rolü  
Arif Müezzinoğlu; Ankara, Türkiye

---

**S25**

Maden Kazalarının Önlenmesine ve Solunum Acillerine Yönelik Alınacak Önlemler  
Peri Arbak; Düzce, Türkiye

---