

MIRT

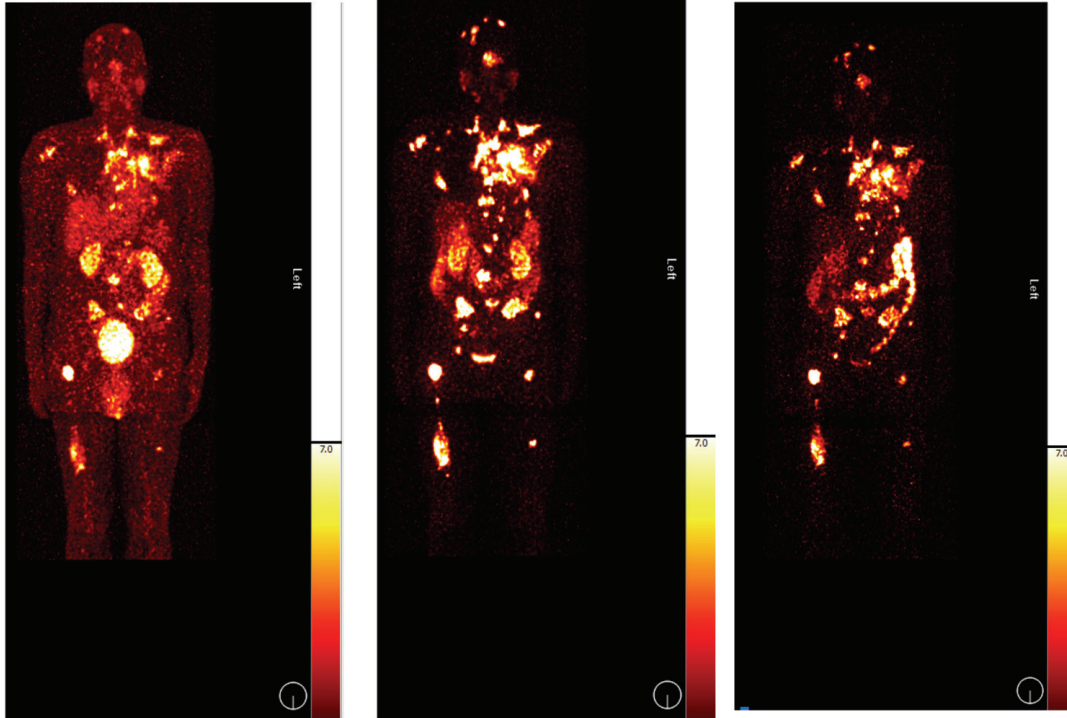
Molecular Imaging and Radionuclide Therapy

February 2026

Volume 35

Issue 1

www.tsnm.org



"Official Journal of the Turkish Society of Nuclear Medicine"

■ The Ownership: Turkish Society of Nuclear Medicine (TSNM)

Turkish Society of Nuclear Medicine
Address: Aziziye Mah. Pilot Sk. 10/12,
Çankaya/Ankara, Türkiye
e-mail: dernekmerkezi@tsnm.org
Tel: +90 312 441 00 45

■ Publishing Manager

Prof. Elif Özdemir, MD.
Ankara Yıldırım Beyazıt University Faculty of
Medicine, Department of Nuclear Medicine;
Ankara Bilkent City Hospital, Clinic of Nuclear
Medicine, Ankara, Türkiye
E-mail: ozdemire80@gmail.com
ORCID ID: 0000-0002-9142-8752

■ Editor in Chief

Prof. Murat Fani Bozkurt, MD, FEBNM
FEBNM Hacettepe University, Medical School,
Department of Nuclear Medicine, Ankara,
Türkiye
E-mail: fanibozkurt@gmail.com
ORCID ID: 0000-0003-2016-2624

■ Associate Editors

Prof. Nalan Selçuk, MD.
Yeditepe University, Medical School,
Department of Nuclear Medicine, İstanbul,
Türkiye
E-mail: nalanselcuk@yeditepe.edu.tr
ORCID ID: 0000-0002-3738-6491

Prof. Çiğdem Soydaş, MD.
FEBNM, Ankara University Medical School,
Department of Nuclear Medicine, Ankara,
Türkiye
Email: csoydaş@yahoo.com; csoydaş@ankara.
edu.tr
ORCID ID: 0000-0002-6199-8551

■ Statistics Editors

Prof. Gül Ergör, MD.
Dokuz Eylül University, Medical School,
Department of Public Health, İzmir, Türkiye
E-mail: gulergor@deu.edu.tr

Prof. Sadettin Kılıçkap, MD.
Hacettepe University, Medical School,
Department of Preventive Oncology, Ankara,
Türkiye
E-mail: skilickap@yahoo.com

■ English Language Editor Galenos Publishing House

Scientific Advisory Board

Ayşegül Akgün

Ege University, Medical School, Department of Nuclear Medicine, İzmir, Türkiye

Esma Akın

The George Washington University, Medical School, Department of Diagnostic Radiology, Washington DC, USA

Akram Al-Ibraheem

King Hussein Cancer Center (KHCC), Department of Nuclear Medicine, Amman, Jordan

Claudine Als

Hopitaux Robert Schuman Zitha Klinik, Médecine Nucléaire, Luxembourg

Corinna Altini

Nuclear Medicine Unit, AOU Policlinic of Bari – University of Bari “Aldo Moro”, Bari, Italy

Vera Artiko

Clinical Center of Serbia, Center for Nuclear Medicine, Belgrade, Serbia

Nuri Arslan

University of Health Sciences Türkiye, Gülhane Medical School, Gülhane Training and Research Hospital, Clinic of Nuclear Medicine, Ankara, Türkiye

Lütfiye Özlem Atay

Gazi University Faculty of Medicine, Department of Nuclear Medicine, Ankara, Türkiye

Marika Bajc

Lund University Hospital, Clinic of Clinical Physiology, Lund, Sweden

Lorenzo Biassoni

Great Ormond Street Hospital for Children NHS Foundation Trust, Department of Radiology, London, United Kingdom

Hans Jürgen Biersack

University of Bonn, Department of Nuclear Medicine, Clinic of Radiology, Bonn, Germany

M. Donald Blafox

Albert Einstein College of Medicine, Department of Radiology, Division of Nuclear Medicine, New York, USA.

Patrick Bourguet

Centre Eugène Marquis Department of Nuclear Medicine, Clinic of Radiology, Rennes, France

Murat Fani Bozkurt

FEBNM Hacettepe University, Medical School, Department of Nuclear Medicine, Ankara, Türkiye

A. Cahid Civelek

NIH Clinical Center, Division of Nuclear Medicine, Bethesda, USA

Arturo Chiti

Humanitas University, Department of Biomedical Sciences; Humanitas Clinical and Research Center, Clinic of Nuclear Medicine, Milan, Italy

Josep Martin Comin

Hospital Universitari de Bellvitge, Department of Nuclear Medicine, Barcelona, Spain

Alberto Cuocolo

University of Naples Federico II, Department of Advanced Biomedical Sciences, Napoli, Italy

Tevfik Fikret Çermik

University of Health Sciences Türkiye, İstanbul Training and Research Hospital, Clinic of Nuclear Medicine, İstanbul, Türkiye

Angelika Bischof Delaloye

University Hospital of Lausanne, Department of Radiology, Lausanne, Switzerland

Mustafa Demir

İstanbul University, Cerrahpaşa Medical School, Department of Nuclear Medicine, İstanbul, Türkiye

Hakan Demir

Kocaeli University Medical School, Department of Nuclear Medicine, Kocaeli, Türkiye

Peter Josef Ell

University College Hospital, Institute of Nuclear Medicine, London, United Kingdom

Tanju Yusuf Erdil

Marmara University, Pendik Training and Research Hospital, Clinic of Nuclear Medicine, İstanbul, Türkiye

Türkan Ertay

Dokuz Eylül University, Medical School, Department of Nuclear Medicine, İzmir, Türkiye

Jure Fettich

University Medical Centre Ljubljana, Department for Nuclear Medicine, Ljubljana, Slovenia

Christiane Franzius

Klinikum Bremen Mitte Center, Center for Modern Diagnostics, Bremen, Germany

Lars Friberg

University of Copenhagen Bispebjerg Hospital, Department of Nuclear Medicine, Copenhagen, Denmark

Jørgen Frøkiær

Aarhus University Hospital, Clinic of Nuclear Medicine and PET, Aarhus, Denmark

Maria Lyra Georgosopoulou

University of Athens, 1st Department of Radiology, Aretaieion Hospital, Radiation Physics Unit, Athens, Greece

Gevorg Gevorgyan

The National Academy of Sciences of Armenia, H. Buniatian Institute of Biochemistry, Yerevan, Armenia

Seza Güleç

Florida International University Herbert Wertheim College of Medicine, Departments of Surgery and Nuclear Medicine, Miami, USA

Liselotte Højgaard

University of Copenhagen, Department of Clinical Physiology, Nuclear Medicine and PET, Rigshospitalet, Copenhagen, Denmark

Ora Israel

Tel Aviv University Sackler Medical School, Assaf Harofeh Medical Center, Clinic of Otolaryngology-Head and Neck Surgery, Haifa, Israel

Csaba Juhasz

Wayne State University Medical School, Children's Hospital of Michigan, PET Center and Translational Imaging Laboratory, Detroit, USA

Gamze Çapa Kaya

Dokuz Eylül University, Medical School, Department of Nuclear Medicine, İzmir, Türkiye

Metin Kır

Ankara University, Medical School, Department of Nuclear Medicine, Ankara, Türkiye

Irena Dimitrova Kostadinova

Alexandrovska University Hospital, Clinic of Nuclear Medicine, Sofia, Bulgaria

Lale Kostakoğlu

The Mount Sinai Hospital, Clinic of Nuclear Medicine, New York, USA

Rakesh Kumar

All India Institute of Medical Sciences, Department of Nuclear Medicine, New Delhi, India

Georgios S. Limouris

Athens University, Medical School, Department of Nuclear Medicine, Athens, Greece

Luigi Mansi

Second University of Naples, Medical School, Department of Nuclear Medicine, Naples, Italy

Yusuf Menda

University of Iowa Health Care, Carver College of Medicine, Department of Radiology, Iowa City, USA

Vladimir Obradović

University of Belgrade, Faculty of Organizational Sciences, Department of Human Development Theory, Business Administration, Organizational Studies, Belgrade, Serbia

Zehra Özcan

Ege University Faculty of Medicine, Department of Nuclear Medicine, İzmir, Türkiye

Yekta Özer

Hacettepe University, Faculty of Pharmacy, Department of Radiopharmaceutical, Ankara, Türkiye

Francesca Pons

Hospital Clinic, Clinic of Nuclear Medicine, Barcelona, Spain

Monica Rossleigh

Sydney Children's Hospital, Clinic of Nuclear Medicine, Sydney, Australia

Dragana Sobic Saranovic

University of Belgrade, Medical School, Departments of Radiology, Oncology and Cardiology, Belgrade, Serbia

Mike Sathekge

University of Pretoria, Steve Biko Academic Hospital, Department of Nuclear Medicine, Pretoria, South Africa

Kerim Sönmezoğlu

İstanbul University, Cerrahpaşa Medical School, Department of Nuclear Medicine, İstanbul, Türkiye

Zsolt Szabo

The Johns Hopkins Hospital, Divisions of Radiology and Radiological Science, Baltimore, USA

Istvan Szilvasi

Semmelweis University, Medical School, Department of Nuclear Medicine, Budapest, Hungary

Berna Okudan Tekin

Ankara Numune Trainig and Research Hospital, Clinic of Nuclear Medicine, Ankara, Türkiye

Mathew L. Thakur

Thomas Jefferson University, Department of Radiology, Pennsylvania, USA

Bülent Turgut

Cumhuriyet University, Medical School, Department of Nuclear Medicine, Sivas, Türkiye

Turgut Turoğlu

Marmara University, Medical School, Department of Nuclear Medicine, İstanbul, Türkiye

Gülen Uçmak

University of Health Sciences Türkiye, Ankara Oncology Training and Research Hospital, Clinic of Nuclear Medicine, Ankara, Türkiye

Doğangün Yüksel

Pamukkale University, Medical School, Department of Nuclear Medicine, Denizli, Türkiye

Turkish Society of Nuclear Medicine

Cinnah Caddesi Pilot Sokak No: 10/12 Çankaya 06650 Ankara, Türkiye Phone: +90 312 441 00 45 Fax: +90 312 441 12 95 Web: www.tsnm.org E-mail: dernekmerkezi@tsnm.org

"Formerly Turkish Journal of Nuclear Medicine"

Reviewing the articles' conformity to the publishing standards of the Journal, typesetting, reviewing and editing the manuscripts and abstracts in English, creating links to source data, and publishing process are realized by Galenos.

**Publisher Contact**

Address: Molla Gürani Mah. Kaçamak Sk. No: 21/1 34093 İstanbul, Türkiye

Phone: +90 (530) 177 30 97 / +90 (539) 307 32 03

E-mail: info@galenos.com.tr/yayin@galenos.com.tr

Web: www.galenos.com.tr

Publisher Certificate Number: 14521

Online Publication Date: February 2026

ISSN: 2146-1414 **E-ISSN:** 2147-1959

International scientific journal published quarterly.



MIRT

Molecular Imaging and Radionuclide Therapy

Please refer to the journal's webpage (<https://mirt.tsnmjournals.org/>) for "Aims and Scope", "Instructions to Authors" and "Ethical Policy".

The editorial and publication process of Molecular Imaging and Radionuclide Therapy are shaped in accordance with the guidelines of ICMJE, WAME, CSE, COPE, EASE, and NISO. The journal is in conformity with the Principles of Transparency and Best Practice in Scholarly Publishing.

Molecular Imaging and Radionuclide Therapy is indexed in **Pubmed, Pubmed Central (PMC), Emerging Sources Citation Index (ESCI), TUBITAK-ULAKBIM, Scopus, Gale/Cengage Learning, EBSCO databases, ProQuest Health & Medical Complete, CINAHL, Embase, J-Gate, IdealOnline, Türkiye Atıf Dizini-Türkiye Citation Index, Turk Medline, Hinari, GOALI, ARDI, OARE, AGORA and CNKI.**

The journal is published electronically.

Owner: Turkish Society of Nuclear Medicine

Responsible Manager: Murat Fani Bozkurt



CONTENTS

Original Articles

- 1** **Effects of High-dose Radioactive Iodine Therapy on Hormonal Profiles and Sperm Quality in Thyroidectomy Patients**
Tiroidektomi Hastalarında Yüksek Doz Radyoaktif İyot Tedavisinin Hormonal Profiller ve Sperm Kalitesi Üzerine Etkileri
Mehrosadat Alavi, Raziye Hojjat, Ali Taghinezhad, Manzarbanoo Shojaeifard; Shiraz, Fasa, Iran
- 10** **Automated Segmentation of Liver and Liver Tumors with SwinUNETR and UNET Neural Networks on ^{18}F -FDG PET/CT**
SwinUNETR ve Residual UNET Nöral Ağlar ile ^{18}F -FDG PET/BT Karaciğer ve Karaciğer Tümörlerin Otomatik Segmentasyonu
Burak Demir, Hatice Kübra Yurtçu, Merve Ağcıoğlu Atalay, Fikret Ertek; Şanlıurfa, Türkiye
- 19** **The Prognostic Significance of Preoperative Staging ^{18}F -FDG PET/MRI Findings in Gastric Cancer Patients Undergoing Gastrectomy**
Gastrektomi Yapılan Mide Kanseri Hastalarında Preoperatif Evreleme ^{18}F -FDG PET/MRG Bulgularının Prognostik Önemi
Seda Gülbahar Ateş, Uğuray Aydos, Ramazan Kalkan, Ümit Özgür Akdemir, Lutfiye Özlem Atay; Ankara, Türkiye
- 28** **Beyond the Primary Tumor: Malignancy Risk and Evaluation Strategies for ^{18}F -FDG PET/CT-Detected Incidentalomas**
Primer Tümörün Ötesinde: ^{18}F -FDG PET/BT ile Saptanan İksidentalomalarda Malignite Riski ve Değerlendirme Stratejileri
Yasemin Keskin, Damla Bağcı, Ali Haluk Ulucanlar, Gülin Uçmak; Ankara, Türkiye
- 35** **Quantitative characterization of ^{18}F -PSMA-1007 and [^{68}Ga]Ga-PSMA-11 PET-CT Imaging in Suspected Prostate Cancer: A Single-centre Experience**
Şüpheli Prostat Kanseri ^{18}F -PSMA-1007 ve [^{68}Ga]Ga-PSMA-11 PET-BT Görüntülemesinin Kantitatif Karakterizasyonu: Tek Merkezli Bir Deneyim
Bal Sanghera, Gerry Lowe, Sophie Sanghera, Wai Lup Wong; London, Northwood, United Kingdom
- 44** **Aortic Calcifications Mimicking Lymph Nodes on ^{18}F -PSMA1007 PET**
 ^{18}F -PSMA1007 PET'te Lenf Düğümlerini Taklit Eden Aort Kalsifikasyonları
Salah Nabih Oueriagli, Omar Ait Sahel, Ikram Zahfir, Meryem Aboussabr, Yassir Benameur, Abderrahim Doudouh; Rabat, Morocco
- 47** **Unusual Soft Tissue and Muscle Metastases in Papillary Thyroid Carcinoma: Insights from ^{131}I Scintigraphy and ^{18}F -FDG PET/CT**
Papiller Tiroid Karsinomunda Olağandışı Yumuşak Doku ve Kas Metastazları: ^{131}I Sintigrafi ve ^{18}F -FDG PET/BT'den Elde Edilen Bulgular
Mohd Fazrin Mohd Rohani, Siti Zarina Amir Hassan; Kuala Lumpur, Malaysia
- 51** **Truncation Artifact Presenting as Cropped Projections and Wedge Defect in Sinogram During Single-Photon Emission Computed Tomography**
Tek Foton Emisyonlu Bilgisayarlı Tomografi Sırasında Sinogramda Kırpılmış Projeksiyonlar ve Kama Kusuru Olarak Ortaya Çıkan Trunkasyon Artefaktı
Mohsen Qutbi, Reyhane Ahmadi, Amirmohammad Alinejad, Tehran, Hamadan, Iran
- 55** **Isolated Unilateral Ovarian Metastasis from Breast Cancer Demonstrated by ^{18}F -FDG PET/CT**
 ^{18}F -FDG PET/BT ile Gösterilen Meme Kanseri Kaynaklı İzole Tek Taraflı Over Metastazı
Nur Aydınbelge Dizdar, Ebru Tatçı, Derya Çayır, Özlem Özmen; Ankara, Türkiye

CONTENTS

- 58** **^{99m}Tc-MDP Bone Scintigraphy in a Case of X-Linked Spondyloepiphyseal Dysplasia Tarda**
X'e Bağlı Spondiloepifizyal Displazi Tarda Olgusunda ^{99m}Tc-MDP Kemik Sintigrafisi
Ikram Zahfir, Salah Oueriagli Nabih, Meryem Aboussabr, Yassir Benameur, Omar Ait Sahel, Abderrahim Doudouh; Rabat, Morocco
- 61** **Hepatic Vascular Shunts Mimicking Malignant Lesions on ¹⁸F-FDG PET/CT Imaging: Interpretation Pitfall in the Background of Cirrhotic Liver**
¹⁸F-FDG PET/BT Görüntülemeye Malign Lezyonları Taklit Eden Hepatik Vasküler Şantlar: Sirotik Karaciğer Zemininde Yorumlama Zorluğu
Sanchay Jain, Assim Saad Eddin, Parren McNeely, Michael Graham, Ahmad Shariftabrizi; Iowa City, United States
- 64** **A Rare Case of Small Cell Lung Carcinoma Diagnosed with a Breast Mass**
Memede Kitle ile Tanı Konulan Nadir Bir Küçük Hücreli Akciğer Karsinomu Olgusu
Nur Aydınbelge Dizdar, Derya Çayır, Hatice Türksoy Karaca, Ata Türker Arıkök, Özlem Özmen; Ankara, Türkiye
- 67** **Metastatic Prostate Cancer with Pulmonary Involvement Mimicking Pneumonia: Findings on ¹⁸F-FDG PET/CT and ⁶⁸Ga-PSMA PET/CT**
Pnömoniyi Taklit Eden Akciğer Tutulum olan Metastatik Prostat Kanseri: ¹⁸F-FDG PET/BT ve ⁶⁸Ga-PSMA PET/BT Bulguları
Nur Aydınbelge Dizdar, Ebru Tatçı, Alev Noyaner Çınar, Büşra Bozca, Özlem Özmen; Ankara, Türkiye
- 70** **Intense FAPI Uptake of Pancreatic Tissue Can Mask the Tumor Activity of Pancreatic Cancer: The Importance of Dual-Tracer PET Imaging**
Pankreatik Dokunun Yoğun FAPI Tutulumu Pankreas Kanserinin Tümör Aktivitesini Maskeleyebilir: Çift İzleyici PET Görüntülemenin Önemi
Elife Akgün, Ahmet Ertuğrul Öztürk, Göksel Alçın, Mert Mahsuni Sevinç, Esra Arslan; İstanbul, Türkiye
- Case Reports**
- 73** **The Complementary Roles of ¹⁸F-Fluorocholine and ¹⁸F-Fluorodeoxyglucose Positron Emission Tomography/Computed Tomography in an Evaluation of A Patient With Parathyroid Carcinoma: A Case Report**
Paratiroid Karsinomlu Bir Hastanın Değerlendirilmesinde ¹⁸F-Florokolin ve ¹⁸F-Florodeoksiglukoz Pozitron Emisyon Tomografi/Bilgisayarlı Tomografinin Tamamlayıcı Roller: Bir Olgu Sunumu
Nikola Pantic, Lenka Grujicic, Branislava Radovic, Dragana Sobic Saranovic, Vera Artiko, Strahinja Odalovic; Belgrade, Mitrovica, Serbia
- 78** **First Southeast Asian Experience of Terbium-161 PSMA Therapy for Metastatic Castration-Resistant Prostate Cancer (mCRPC): Quantitative Imaging and Dosimetric Approach**
Metastatik Kastrasyona Dirençli Prostat Kanseri (mCRPC) için Terbiyum-161 PSMA Tedavisinin Güneydoğu Asya'daki İlk Deneyimi: Kantitatif Görüntüleme ve Dozimetrik Yaklaşım
Sasithorn Amnuaywattakorn, Putthiporn Charoenphun, Touch Ativitavas, Panya Pasawang, Kitiwat Khamwan, Thonnapong Thongpraparn, Benjapa Khiewvan, Ponkittiya Ruangma, Wichana Chamroonrat, Krisanat Chuamsaamarkkee; Thailand, Bangkok
- 84** **Erratum**