



# Cutaneous Metastase of Rectal Neuroendocrine Carcinoma Revealed on <sup>18</sup>F-FDG PET/CT

Rektal Nöroendokrin Karsinomun <sup>18</sup>F-FDG PET/CT'de Kutanöz Metastazı

Ömer Faruk Şahin, Rahime Şahin, Mehmet Can Baloğlu, Tevfik Fikret Çermik, Nurhan Ergül

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

## Abstract

Rectal neuroendocrine carcinomas constitute <1% of all neuroendocrine carcinomas and <1% of all gastrointestinal tract malignancies. Cutaneous metastases of rectal neuroendocrine carcinoma are rarer than visceral metastases. We represent a 71-year-old man who was diagnosed with neuroendocrine tumor grade 3 originating from the rectum 1 year ago. He was referred for <sup>18</sup>F-fluorodeoxyglucose (FDG) positron emission tomography/computed tomography for restaging after 6 cycles of chemotherapy and radiotherapy. Intensely increased <sup>18</sup>F-FDG uptake in the right cutaneous inguinal region was consistent with neuroendocrine carcinoma metastasis with biopsy from the same region.

**Keywords:** <sup>18</sup>F-FDG-PET, rectal neuroendocrine carcinoma, cutaneous metastasis

## Öz

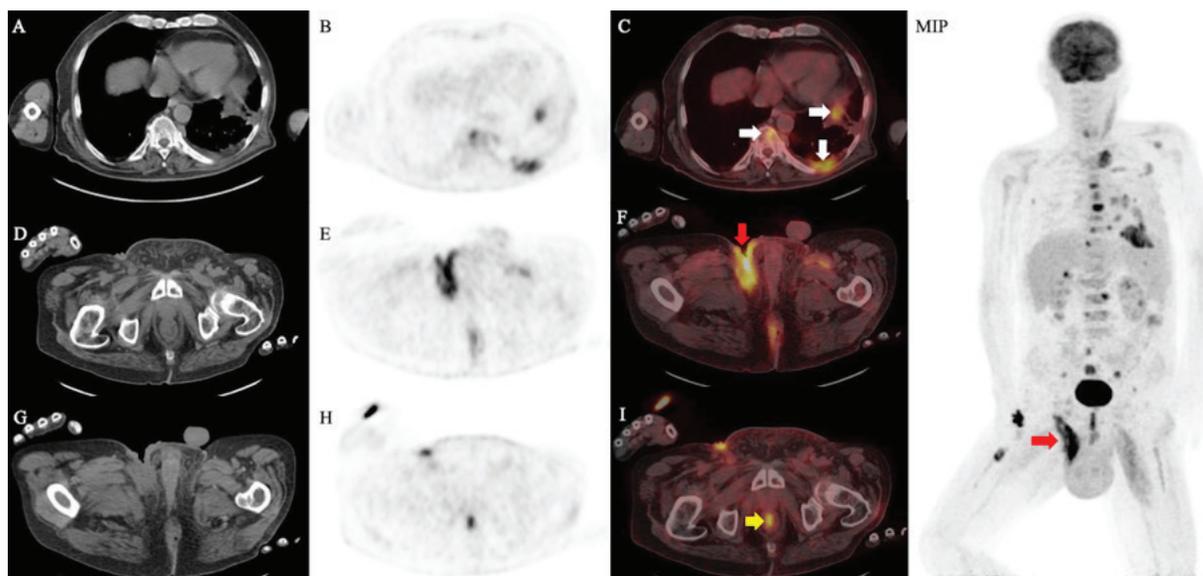
Rektal nöroendokrin karsinomlar, tüm nöroendokrin karsinomların <1'ini ve tüm gastrointestinal sistem malignitelerinin <1'ini oluşturur. Rektal nöroendokrin karsinomun deri metastazı, viseral metastazlardan daha nadirdir. Bir yıl önce rektum kaynaklı nöroendokrin tümör grade 3 tanısı konan 71 yaşında bir erkek hastayı sunuyoruz. Hasta 6 kür kemoterapi ve radyoterapi sonrası yeniden evreleme için <sup>18</sup>F-florodeoksiglukoz (FDG) pozitron emisyon tomografisi/bilgisayarlı tomografiye yönlendirildi. Sağ kasık bölgesindeki deride yoğun artmış <sup>18</sup>F-FDG tutulumu aynı bölgeden alınan biyopsi sonucuyla birlikte nöroendokrin karsinom metastazı ile uyumluydu.

**Anahtar kelimeler:** <sup>18</sup>F-FDG-PET, rektal nöroendokrin karsinom, kutanöz metastaz

**Address for Correspondence:** Ömer Faruk Şahin MD, University of Health Sciences Turkey, İstanbul Training and Research Hospital, Clinic of Nuclear Medicine, İstanbul, Turkey

**Phone:** +90 212 45960 00 **E-mail:** dromersahin@yahoo.com ORCID ID: orcid.org/0000-0003-3931-4261

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**Figure 1.** A 71-year-old man who was diagnosed with neuroendocrine tumor grade 3 originating from the rectum 1 year ago was referred to <sup>18</sup>F-fluorodeoxyglucose (FDG) positron emission tomography/computed tomography (PET/CT) for restaging after chemoradiotherapy. Axial CT, PET (A, B), and PET/CT fusion images (C) showed increased <sup>18</sup>F-FDG uptake related to metastatic lesions at vertebral regions and mass lesions at lingular segment of upper left lung and inferior anterobasal lobe of left lung [maximum standardized uptake value (SUV<sub>max</sub>): 8.6] (white arrows). There was diffuse and intense <sup>18</sup>F-FDG uptake on skin at right inguinal region consistent with metastasis (SUV<sub>max</sub>: 15.8) on axial CT, PET (D, E), and PET/CT fusion images (F) (red arrows). Also, a moderate uptake is seen at distal rectum and anal canal on axial CT, PET (G, H), and PET/CT fusion images (I) (SUV<sub>max</sub>: 10.4) (yellow arrow). Rectal neuroendocrine carcinomas most commonly metastasizes to liver, followed by bone, lung, central nervous system, pleura, or mediastinum, while cutaneous metastases are considered rare (1). Primary cutaneous neuroendocrine carcinoma, also named Merkel cell carcinoma, is rare, accounting for less than 1% of all cutaneous malignancies and tends to spread quickly to the regional lymph nodes and then metastasizes to other organs, in particular the liver, bone, brain, and lungs (2). Secondary metastatic cutaneous neuroendocrine carcinoma is more commonly reported in the lung, less often in the larynx, gastrointestinal tract, pancreas, testicle, bladder, breast, uterus and rectum (3). Common regions for cutaneous metastasis of rectal neuroendocrine carcinomas include the scalp, abdomen, chest, back, and extremities. The appearance of cutaneous metastasis is a very poor prognostic sign (4). Up to now, 5 cases were reported that rectal neuroendocrine carcinoma metastasizes to skin. However, none of them include inguinal skin metastases and use <sup>18</sup>F-FDG PET/CT for imaging (5,6,7,8).

### Ethics

**Informed Consent:** The patient consent was obtained.

**Peer-review:** Externally peer-reviewed.

### Authorship Contributions

Surgical and Medical Practices: Ö.M.Ş., R.Ş., M.C.B., T.F.Ç., N.E., Concept: Ö.M.Ş., R.Ş., M.C.B., T.F.Ç., N.E., Design: Ö.M.Ş., R.Ş., M.C.B., T.F.Ç., N.E., Data Collection or Processing: Ö.M.Ş., R.Ş., M.C.B., T.F.Ç., N.E., Analysis or Interpretation: Ö.M.Ş., R.Ş., M.C.B., T.F.Ç., N.E., Literature Search: Ö.M.Ş., R.Ş., M.C.B., T.F.Ç., N.E., Writing: Ö.M.Ş., R.Ş., M.C.B., T.F.Ç., N.E.

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