

# Anorectal Fistula Appearance Mimicking Malign Lesion in F18 FDG PET/CT in a Patient with Lung Cancer: Original Image

Akciğer Kanseri Hastada PET/CT Görüntülemesinde Malign Lezyon Şüphesi Uyandıran Anorektal Fistül Görünümü

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**ABSTRACT** A 54 year old male patient recently diagnosed with lung cancer was referred to our department for FDG PET/CT imaging for staging of primary malignancy. Whole body PET/CT scan was performed and revealed high-grade uptake at the site of primary malignancy in the right lobe of lung and bilaterally intense FDG uptake in metastatic mediastinal, supraclavicular lymph nodes and in suprarenal glands. In addition, intense linear FDG uptake was found in the left lower buttock. Metastatic focus or malignant tumor in the rectum was suspected. However, after correlation with CT images and the physical examination anorectal fistula was found in patients left buttock. An infectious or inflammatory focus in the anorectal region may be seen as an intense uptake when FDG PET is used for tumor imaging. FDG accumulation in these areas may cause false positive results, so interpretation of the CT component of PET/CT and performing physical examination is important.

**Key Words:** Anorectal fistula, fluorodeoxyglucose F18, positron emission tomography

**ÖZET** Yeni akciğer kanseri tanılı 54 yaşında erkek hasta, Nükleer Tıp kliniğimize primer hastalığın evlenmesi amacıyla gönderildi. Tüm vücut PET görüntüleme yapıldı ve hastada akciğer sağ lobda primer tümör odağı ile uyumlu yoğun FDG tutulumu ile bilateral mediastinal, supraklavikuler lenf nodlarında ve her iki böbrek üstü bezlerinde metastatik yoğun FDG tutulum odakları görüldü. Buna ek olarak solda rektal bölgede metastatik odak veya diğer tümör odağı kuşkusu uyandıran yoğun lineer FDG tutulumu izlendi. Bununla birlikte BT kesitleri ile korele edilerek ve fizik muayene yapılarak hastada anorektal fistül tesbit edildi. FDG PET ile tümör görüntülemesinde anorektal bölgede enfeksiyöz veya enflamatuvar odak izlenebilir. Bu alanlardaki FDG tutulumları görüntülerin değerlendirilmesi sırasında hata nedeni olabileceğinden bu çalışma ile PET/CT'nin BT komponentinin ve fizik muayenenin önemini vurguladık.

**Anahtar Kelimeler:** Rektal fistül, florodeoksiglukoz F18, pozitron emisyon tomografi

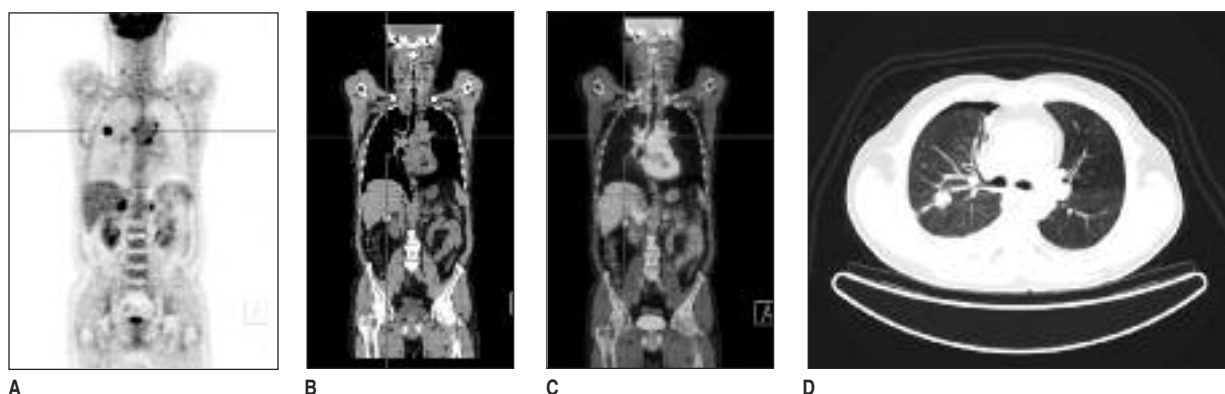


**FIGURE 1:** For primary lung cancer staging, 54 year old man was referred to our department. Whole body images were obtained 60 minutes after intravenous injection of 380 MBq (10,2 mCi) F-18 FDG on a Siemens Biograph LSO HI-REZ integrated PET/CT camera. CT scan was done for attenuation correction and defining anatomical landmarks. The coronal PET (A), coronal CT (B) and coronal fusion (C) images showed high-grade uptake in the right lobe of lung and bilaterally metastatic intense FDG uptake in mediastinum, supraclavicular lymph nodes and in suprarenal glands. Right upper lobe mass can be seen in Thorax CT image (D).

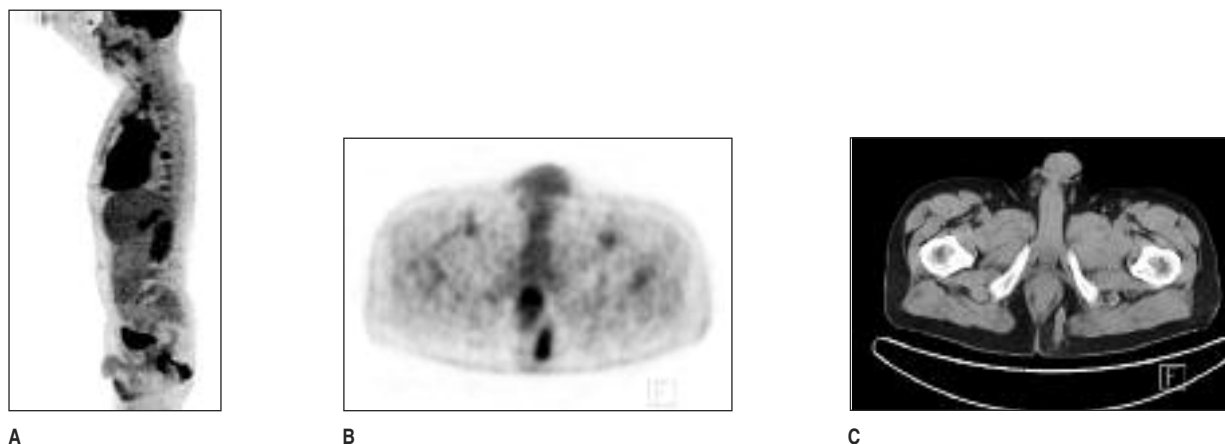


**FIGURE 2:** In F-18 FDG PET/CT images, intense linear FDG uptake was found in the left lower buttock. As shown in MIP PET (A), axial PET (B) and axial CT (C) images metastatic focus or malignant tumor in the rectum was suspected. After the physical examination anorectal fistula was found.

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