

Situs inversus totalis shown in the 18F-FDG PET/CT scan

To the Editor: A 38 years old woman with a history of Hodgkin's disease after a course of chemotherapy was referred to our PET/CT department to search for possible recurrent disease. After 6 h of fasting, her serum glucose level was 103 mg/dl and the patient was injected intravenously (i.v.) with 510,6 MBq of ^{18}F -FDG. The patient was imaged after one hour using a dedicated Siemens Biograph LSO HI-REZ integrated PET/CT camera. The CT scan without i.v. contrast medium, was used for anatomical landmarking and attenuation correction. The scan depicted no recurrent disease but showed situs inversus (Figs 1A, 1B and 1C). Situs inversus is a rare congenital anomaly characterized by transposition of organs to the opposite side of the body. The overall incidence of this anomaly is in the region of 1:5000 to 1:20,000, and being slightly more common in males [1]. Situs inversus may be complete (situs inversus totalis) or partial (situs inversus partialis) confined to either the thoracic or the abdominal viscera [2]. This anomaly apparently does not influence normal life expectancy [3]. Although this anomaly is not considered to be a premalignant entity, several malignant neoplasms have been reported in association with situs inversus totalis [1,4,5], as well as hepatic cirrhosis [6] and calculus cholecystitis [7].

Bibliography

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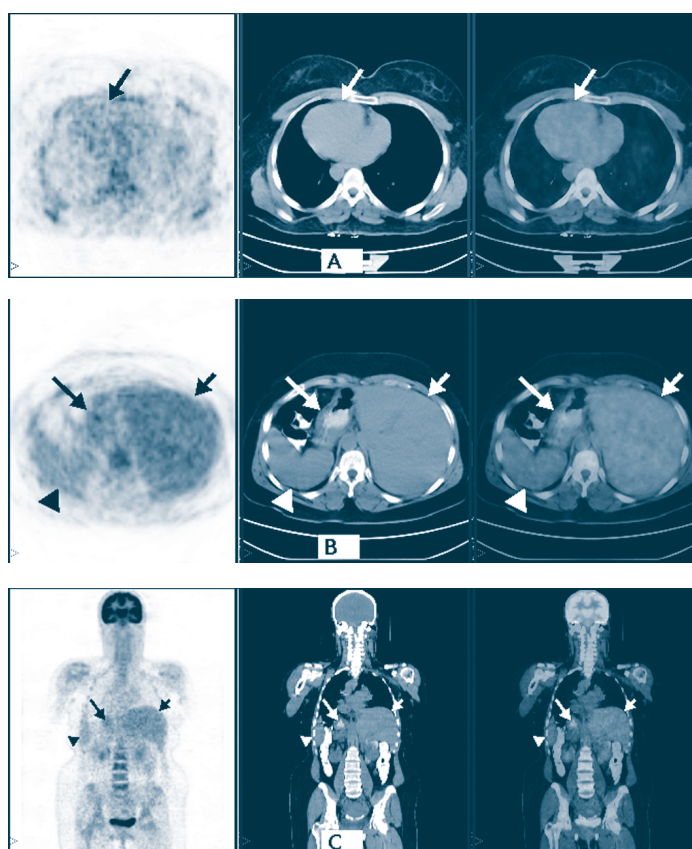


Figure 1. (A) Axial PET, CT and PET/CT fusion images of the thoracic region. Note that the usual appearance of the myocardium is absent in the axial PET image and instead there is slightly increased ^{18}F -FDG uptake in the right hemithorax (arrow). Axial CT and PET/CT fusion images correspond to the right-sided myocardium (arrow). (B) In the axial PET image the usual appearance of the liver is absent. Axial CT and axial PET/CT images correspond to the left-sided liver (short arrow), show the stomach (long arrow) and spleen in right side of the abdomen (arrow head). (C) Coronal PET, CT and PET/CT fusion images show situs inversus totalis.