Interesting images
Combined imaging approach to diagnose a meningioma in a patient with prostate and lung cancers

Uso combinado de técnicas de imagen para el diagnóstico de meningioma en un paciente con cáncer de próstata y de pulmón

M. Sollini\textsuperscript{a,∗}, M. Zanichelli\textsuperscript{b}, M. Roncali\textsuperscript{a}, G. Atti\textsuperscript{a}, P.A. Erba\textsuperscript{c}, A. Versari\textsuperscript{a}

\textsuperscript{a} Nuclear Medicine Unit, Department of Oncology and Advanced Technology, Arcispedale Santa Maria Nuova – IRCCS Reggio Emilia, Viale Risorgimento 80, 42123 Reggio Emilia, Italy
\textsuperscript{b} Neuroradiology Unit, Department of Diagnostic Imaging, Arcispedale Santa Maria Nuova – IRCCS Reggio Emilia, Viale Risorgimento 80, 42123 Reggio Emilia, Italy
\textsuperscript{c} Nuclear Medicine Unit, Department of Translational Research and Advanced Technologies in Medicine, University of Pisa, Via Savi 10, 56126 Pisa, Italy

A 79-year-old man with prostate cancer (PCa) and lung adenocarcinoma stage IIA that were both surgically treated (in 1996 and 2012, respectively) underwent a \textsuperscript{18}F-fluoroethicholine (\textsuperscript{18}F-FECH) positron emission tomography/computed tomography (PET/CT, Fig. 1). \textsuperscript{18}F-FECH PET/CT was performed to exclude PCa recurrence due to the rise from 2008 in prostate specific antigen serum level (=2.9 ng/mL at the time of examination). The patient was symptomless. PET/CT showed only an area of abnormal \textsuperscript{18}F-FECH uptake located in the left parasellar region (see Fig. 1B). This finding was considered suspect for a brain metastasis from PCa or lung cancer. Subsequent radiological images (Fig. 2) confirmed the presence of a lesion which presented the typical characteristics of meningioma.\textsuperscript{1} Meningioma is the most common benign slow-growing tumor in adults that originate from the outer covering layers of the brain frequently supratentorial (85–90\%) located along the falx or at the convexity (45\%), and at the sphenoid ridge (15–20\%). Radiology has proven to have powerful capabilities in evaluating meningioma. Magnetic resonance imaging (MRI) is particularly useful to diagnose meningioma since it has the ability to assess soft tissue characteristics and to demonstrate the dural tail or “dural flair” (see Fig. 2B), a finding frequently not observed at CT, and cerebrospinal fluid “cleft sign”, which is not specific for meningioma, but helps establish the mass to be extra-axial.

In conclusion, since radiolabeled choline brain uptake can occur in different conditions (including primary brain malignancy, tumor metastasis, pituitary adenoma, abscess, tuberculosis, benign glial cell proliferation, inflammatory granuloma and demyelination)\textsuperscript{2,3} all causes should be carefully considered during image interpretation and \textsuperscript{18}F-FECH tumor deposits cannot be “a priori” excluded, thus correlative imaging with radiology is of the utmost importance.

\textsuperscript{∗} Corresponding author.
\textit{E-mail addresses:} martina.sollini@asmn.re.it, martinasollini@msn.com (M. Sollini).

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**Conflict of interest**

All the authors declare that they have no conflict of interest.

**References**

