

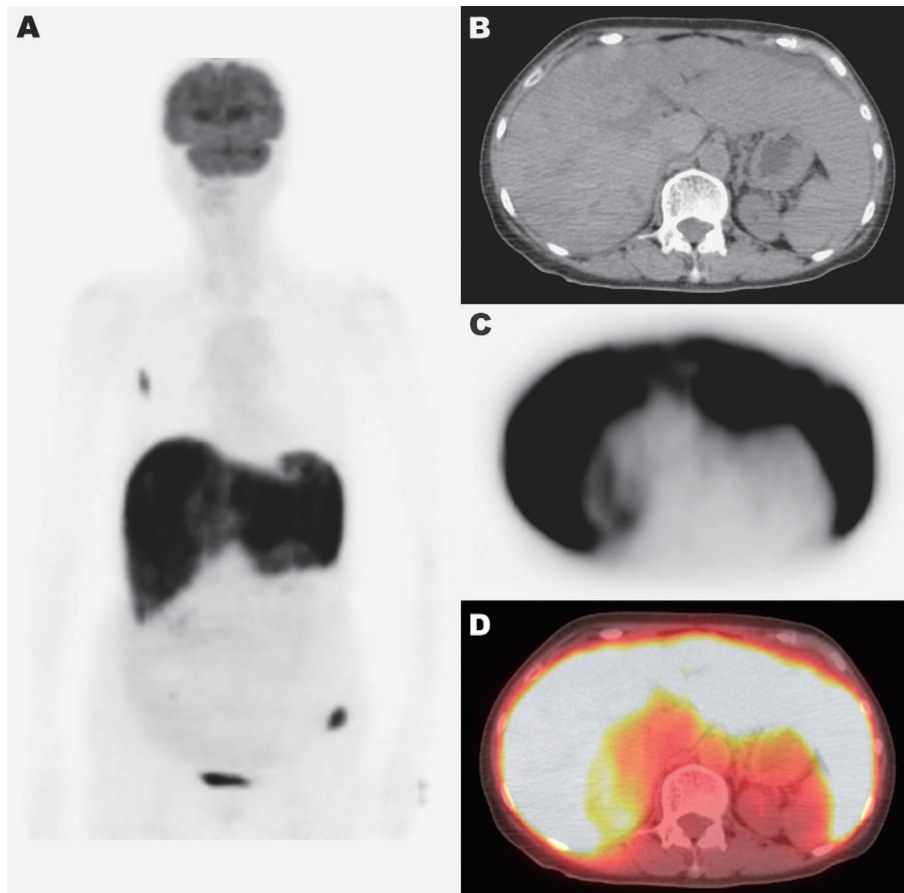
Hot Liver Sign: An Indicator of a Grave Prognosis

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Picture 1.

A 70-year-old woman with right breast cancer underwent F-18 fluorodeoxyglucose (FDG) positron emission tomography/computed tomography (PET/CT) for staging. Maximum intensity projection (Picture 1A), selected transaxial CT image (Picture 1B), corresponding PET image (Picture 1C) and the PET/CT image (Picture 1D) demonstrated an extremely

“hot” liver with diffusely increased intensity throughout the parenchyma. Low physiologic activities were noticed in the brain, heart, kidneys, bowel, urinary bladder, and soft tissues. These unique metabolic findings represented an imaging pattern of “hot liver sign” which is the earliest indicator of acute liver failure with poor survival due to extensive he-

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patic metastases. Additional foci were also observed in the right 4th rib and left iliac bone indicating skeletal metastases. Contrast-enhanced CT also provided a clue for the diagnosis of multiple hepatic metastases. Four days later, she was sent to the emergency department because of conscious disturbance. Blood laboratory studies disclosed as following: aspartate transaminase, 483 U/L; alanine aminotransferase, 173 U/L; alkaline phosphatase, 549 U/L; γ -glutamyl transpeptidase, 1,922 U/L; and ammonia, 160 μ mol/L. A diagnosis of acute liver failure was made and the patient expired after five days through hospice care.

The hot liver sign on FDG PET/CT has been rarely reported as hepatic involvement by metastatic breast can-

cer (1). Since the hot liver sign is indicative for early mortality and a grave prognosis, physicians should perceive this notable picture to facilitate the proper diagnosis and treatment in advance.

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Reference

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