Preoperative integrated PET-CT scanning reduces the number of futile thoracotomies for lung cancer

In this Danish trial, patients being assessed for surgery of early stage non-small cell lung cancer (NSCLC) were randomised to either conventional staging and PET-CT scanning or conventional staging alone. The number of futile thoracotomies in each arm is a measure of staging accuracy and was used as the primary outcome. A thoracotomy was deemed futile if one of the following criteria was met: pathologically confirmed N2, N3, T4 or M1 disease, an exploratory thoracotomy, a benign lung lesion or a thoracotomy in a patient who developed recurrent disease or died within 1 year of randomisation.

Ninety-eight patients were allocated to the PET-CT arm and 91 to the conventional staging group between 2002 and 2007. Sixty patients undergoing PET-CT had a thoracotomy compared or died within 1 year of randomisation.

The trial confirms the importance of routine use of PET-CT scanning in the preoperative staging of NSCLC. However, even with the use of PET-CT, 55% of thoracotomies remained futile, emphasising the need for further progress in this area.


Neal Navani

Correspondence to: Dr N Navani, MRC Clinical Research Training Fellow, Centre for Respiratory Research, University College London, London, London, UK; n.navani@ucl.ac.uk

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