EORTC trial evaluating functional imaging for patients with non-small cell lung cancer

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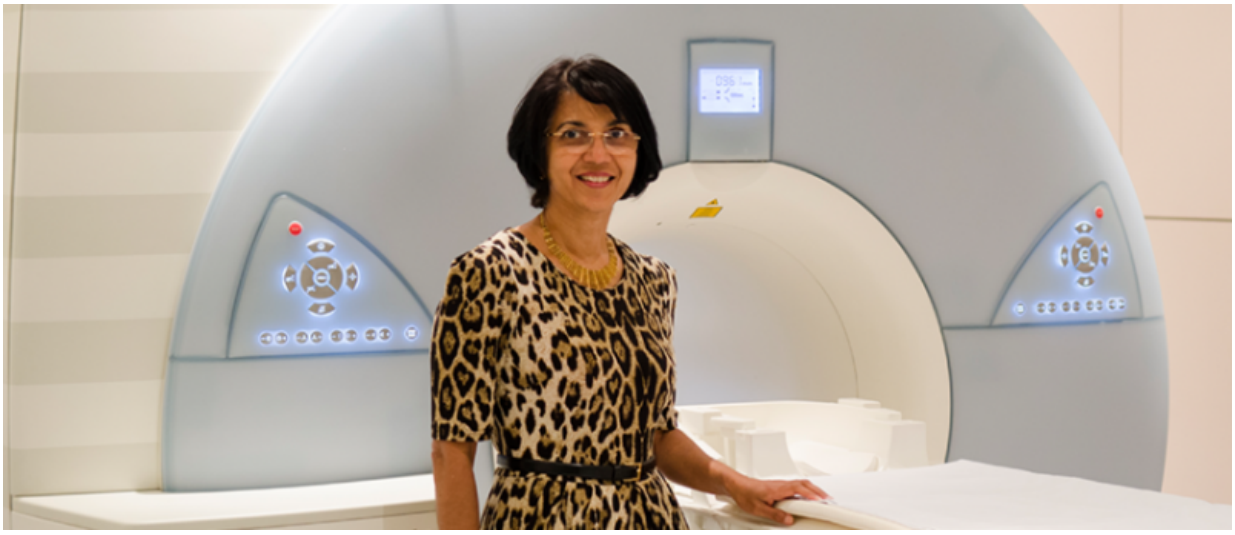

Each year well over one million patients die of non-small cell lung cancer (NSCLC) making it the leading cause of tumor-related deaths. For patients with this disease, it would be quite valuable to be able to decide whether they should continue with a specific line of treatment.

Currently, anatomic imaging cannot detect early changes in the tumor due to the treatment. Anatomic imaging measures the size of the tumor, but the treatment itself needs time to affect that. Functional imaging on the other hand, could provide early detection of response after just 14

days of treatment. Using imaging biomarkers, it is possible to assess - the activity or the aggressiveness of a tumor. This, then, would open up the opportunity to stop the treatment at an early stage if the patient is not responding. It could also enable non-responsive patients to avoid unnecessary treatment and associated toxicity, and allow physicians to propose alternative treatments in a more timely fashion.

EORTC trial 1217 has now opened to qualify and quantify imaging biomarkers for this purpose. This trial will independently evaluate the use of 3'-deoxy-3'-[18F]fluorothymidine positron emission tomography (FLT-PET) and diffusion weighted magnetic resonance imaging (DW-MRI) in patients with early stage non-small cell lung cancer treated with pre-operative chemotherapy followed by surgery.

Dr. Nandita deSouza of the Royal Marsden Hospital - Sutton and coordinator of this study explains, "FLT-PET will be used to monitor tumor cell proliferation and DWI-MRI to monitor tumor cell death. The values obtained from the scan at the beginning of treatment will be compared with those obtained two weeks later as well as with pathological observations such as the percentage of viable residual tumor cells measured in surgical specimens. This should allow researchers to determine whether imaging can help qualify tumor cell proliferation and tumor cell death in patients with operable non-small cell lung cancer."

EORTC trial 1217 is coordinated by the EORTC Imaging Group in collaboration with the EORTC Lung Cancer Group and plans to enroll 40 patients at eight institutions located in three countries, Italy, The Netherlands, and the United Kingdom. This multicenter, non-randomized, single arm imaging trial is supported by the Innovative Medicines Initiative Joint Undertaking under grant agreement number 115151, resources of which are composed of financial contribution from the European Union's Seventh Framework Programme (FP7/2007-2013) and EFPIA companies' in kind contribution.

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