Heart and liver transplant recipients are at particularly high risk of developing lung cancer after receiving the donated organ, researchers report at the 2nd European Lung Cancer Conference. They are advising doctors to screen for such cancers in these patients to maximize the chance of detecting the malignancy early.

Doctors have known for decades that the immunosuppressive drugs given to transplant patients increase their risk of developing new cancers. In transplant patients, the risk of developing a malignant tumor ranges from 4% to 18% and may be 100-fold higher than in the general population. The most common malignancies after transplantation are cancers of the lips and skin, lymphoproliferative disorders and Kaposi's sarcoma.

In a new study, French researchers studied the risk of developing lung cancer in patients who received different types of solid organs. Theirs is the largest study to date exploring the development of lung cancer in transplant recipients.

The researchers followed a group of 2,831 patients who received organ transplants at Toulouse Hospital between February 1984 and September 2006. Overall, 0.85% of them developed a lung cancer after transplant.

"We observed that 10 lung cancers occurred after kidney transplantation (0.5%), 8 after liver transplantation (1.3%) and 6 after heart transplantation (2.8%). This difference is statistically significant," said
Dr Julien Mazieres, the study coordinator.

"The high incidence of lung cancer in heart transplant and liver transplant recipients may be because more of these patients have a heavy smoking history compared to kidney transplant recipients," he said. The average number of packs per year was 75.2 for heart-transplant patients, 40 for liver-transplant recipients and 28.5 for kidney-transplant recipients.

The researchers say that transplant patients should be screened for expected cancers for which early detection and treatment is associated with a better prognosis. This is particularly true for skin cancers.

Doctors should also consider screening for lung cancer, they say. "We can reasonably think that a close follow-up including chest examination and X-ray is easy to do and useful," Dr Mazieres said. "At least, physicians taking care of transplant recipients should have in mind the increased risk of cancer and integrate this risk factor in their follow-up to improve the survival of these patients."

Provided by European Society for Medical Oncology

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