

Statins prevent cancer in heart transplant recipients

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Statins prevent cancer and reduce death from all causes in heart transplant recipients. The findings were independent of cholesterol levels.

The research was presented at the [Heart Failure Congress 2012](#), 19-22 May, in Belgrade, Serbia. The Congress is the main annual meeting of the [Heart Failure](#) Association of the European Society of Cardiology.

Cancer is the leading cause of death late after heart transplantation. [Skin cancer](#) is particularly common, but solid organ cancers including colorectal cancer, [prostate cancer](#) and lymphoma also occur. The increased rate of cancer in [heart transplant recipients](#) may be related to the [immune suppression](#) of the patient.

Statins are immunomodulatory drugs and may benefit patients beyond their lipid lowering effects. The current study ([abstract P306](#)) investigated the impact of statin therapy on the occurrence of cancer and death from all causes in heart transplantation recipients.

The study included all 255 patients who underwent heart transplantation at the University Hospital Zurich in Switzerland between 1985 and 2007 and were alive after the first year. The primary endpoint was the occurrence of any cancer and the secondary endpoint was overall survival.

During follow up, cancer was diagnosed in 108 patients (42%). Statins

reduced the risk of any cancer by 65% ($p=0.0001$). Eight years after transplantation the cumulative incidence of tumours was 34% in patients not receiving a statin compared to 13% in patients receiving a statin ($p=0.003$). The benefit persisted at the 10 year (39% vs. 18%) and 12 year follow-up (42% vs. 22%).

Statin use was associated with improved cancer free and overall survival (both $p=0.0001$). The [beneficial effect](#) of statins on preventing cancer and reducing death from all causes was independent of patients' [cholesterol levels](#). This suggests that the benefit of statins was due to their immunomodulatory effects.

Guidelines from the International Society for Heart & Lung Transplantation (ISHLT) recommend giving a statin to patients after [heart transplantation](#) to reduce graft atherosclerosis. This study shows that there are additional benefits to following that recommendation.

Lead author Dr Frank Enseleit, deputy director of heart failure and transplantation at University Hospital Zurich, says patients can safely begin statin therapy six months after transplantation and they should take the drug for the rest of their lives.

"We have shown that statin therapy prevents cancer in heart transplant recipients and it is known that statins also prevent graft atherosclerosis," he says. "We have to conclude that it should be a lifelong therapy in heart transplant recipients."

Provided by European Society of Cardiology

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