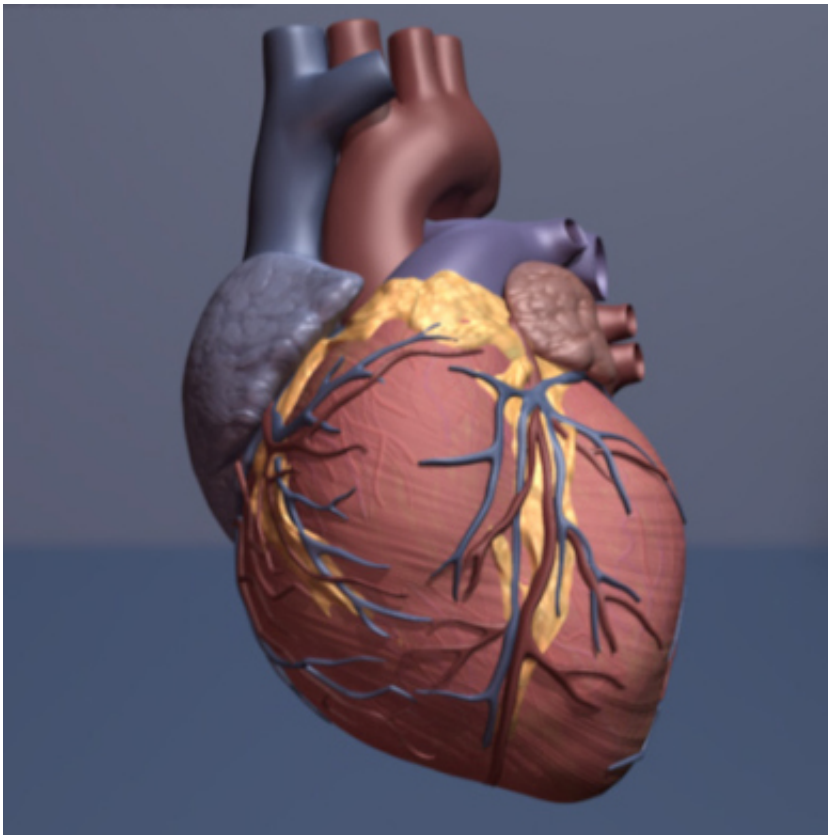


Grey hair linked with increased heart disease risk in men

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Human heart. Credit: copyright American Heart Association

Grey hair has been linked with an increased risk of heart disease in men, in research presented today at EuroPrevent 2017.

"Ageing is an unavoidable coronary risk factor and is associated with

dermatological signs that could signal increased risk," said Dr Irini Samuel, a cardiologist at Cairo University, Egypt. "More research is needed on cutaneous signs of risk that would enable us to intervene earlier in the cardiovascular disease process."

Atherosclerosis and hair greying share similar mechanisms such as impaired DNA repair, oxidative stress, inflammation, hormonal changes and senescence of functional cells. This study assessed the prevalence of grey hair in patients with coronary artery disease and whether it was an independent risk marker of disease.

This was a prospective, observational study which included 545 adult men who underwent multi-slice computed tomography (CT) [coronary angiography](#) for suspected coronary artery disease. Patients were divided into subgroups according to the presence or absence of coronary artery disease, and the amount of grey/white hair.

The amount of grey hair was graded using the hair whitening score: 1 = pure black hair, 2 = black more than white, 3 = black equals white, 4 = white more than black, and 5 = pure white. Each patients' grade was determined by two independent observers.

Data was collected on traditional cardiovascular risk factors including hypertension, diabetes, smoking, dyslipidaemia, and family history of coronary artery disease.

The researchers found that a high hair whitening score (grade 3 or more) was associated with increased risk of coronary artery disease independent of chronological age and established cardiovascular risk factors. Patients with coronary artery disease had a statistically significant higher hair whitening score and higher [coronary artery calcification](#) than those without coronary artery disease.

In multivariate regression analysis, age, hair whitening score, hypertension and dyslipidaemia were independent predictors of the presence of atherosclerotic coronary artery disease. Only age was an independent predictor of hair whitening.

"Atherosclerosis and hair greying occur through similar biological pathways and the incidence of both increases with age," said Dr Samuel. "Our findings suggest that, irrespective of chronological age, hair greying indicates biological age and could be a warning sign of increased cardiovascular risk."

Dr Samuel said asymptomatic patients at high risk of coronary artery disease should have regular check-ups to avoid early cardiac events by initiating preventive therapy.

"Further research is needed, in coordination with dermatologists, to learn more about the causative genetic and possible avoidable environmental factors that determine hair whitening," she added. "A larger study including men and women is required to confirm the association between hair greying and cardiovascular [disease](#) in [patients](#) without other known [cardiovascular risk factors](#)."

She concluded: "If our findings are confirmed, standardisation of the scoring system for evaluation of [hair](#) greying could be used as a predictor for [coronary artery disease](#)."

More information: Dr Samuel will present the abstract 'The degree of hair graying in male gender as an independent risk factor for coronary artery disease, a prospective study' during Poster Session III – [Risk factors: others Part 3](#) which takes place on 8 April from 08:30 to 12:30 in Poster Area.

Provided by European Society of Cardiology

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