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Anti-cholesterol drugs may cause depression: study

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HYDERABAD: A new study has established that long-term use of statins, cholesterol-lowering drugs, may lead to depression.

The study conducted in animal cells by Amitabha Chattopdhyay and his group at the Centre for Cellular and Molecular Biology (CCMB) found that statins impact serotonin, a neurotransmitter in brain that helps to control mood and behaviour. It was found that long-term use of the drug caused significant changes in the structure and function of the serotonin receptors. Adding cholesterol to cells treated with statin restored the function of the receptor to normal levels.

Chronic use

The group's publication establishing the link between chronic use of cholesterol-lowering statins and mood disorders was published in the journal *Biochemistry*, brought out by the American Chemical Society.

Genetic predisposition

Addressing a press conference here on Thursday, CCMB director Ch. Mohan Rao and Professor Chattopadhyay, however, clarified that long-term use of statins caused anxiety and depression only in a small but significant percentage (between 10 to 20 per cent) of people, who might have been genetically predisposed towards that condition.

They also pointed out that the mortality due to heart diseases (caused due to blocking of coronary arteries by cholesterol) had come down significantly in the last two decades due to the introduction of statins, which inhibit the key enzyme responsible for cholesterol bio-synthesis in the human body.

Combination drugs

They said that in the last few years a number of publications reported apparent symptoms of anxiety and major depression in patients upon long-term statin administration, but what caused it was a puzzle. The new finding might lead to combination drugs in future.

Professor Chattopadhyay said statins were the highest selling drugs in the market and current estimates of global sale annually were around \$25 billion. In India, it's market would be of the order of Rs.1,000 crore a year.

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