

GALLSTONES

Statin use is associated with a reduced risk of cholesterol gallstones

Findings from a new study “support the hypothesis that statin intake on a regular basis is associated with a risk reduction of developing a new gallstone diagnosis followed by cholecystectomy”, says Christoph Meier, one of the study authors.

Approximately 10–20% of white adults in developed countries have gallstones, and gallstone disease causes a substantial burden on health-care systems. Two types of gallstone exist: cholesterol stones formed from cholesterol-supersaturated bile (80–90% of gallstones); and pigment stones consisting mainly of polymerized calcium bilirubinate (10–20% of gallstones).

“This finding may mean that patients profit even more from statin use than previously thought...”

Stephan Kraehenbuehl, one of the co-authors of the study, had hypothesized “that statins might affect the content of gallstones, since they lower hepatic cholesterol synthesis, and most gallstones are cholesterol-rich”. The authors

therefore carried out a large, long-term, observational, case–control study to examine the association between the use of statins and other lipid-lowering agents and the risk of gallstone disease.

Information from the UK-based General Practice Research Database was used to identify 27,035 patients who had undergone cholecystectomy only or who had a diagnosis of gallstones followed by cholecystectomy. 106,531 matched controls were also identified. Data on patients’ exposure to lipid-lowering agents was also collected from the database.

Conditional logistic regression analyses were carried out to calculate the odds ratios for developing gallstones followed by cholecystectomy in relation to exposure to lipid-lowering agents. Odds ratios were adjusted for smoking, BMI, ischemic heart disease, stroke and estrogen use.

Adjusted odds ratios were reduced in patients with long-term, current statin use—that is, more than five prescriptions, which reflects 1.0–1.5 years of treatment.

The authors conclude that the findings of their study “provide evidence that long-term use of statins is associated with a decreased risk of developing a



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diagnosis of gallstone disease requiring cholecystectomy”.

“This finding may mean that patients profit even more from statin use than previously thought,” says Meier. He concludes, “It is important that these findings can now be confirmed in additional observational studies. Maybe the findings will be confirmed in a randomized, controlled trial, which would be the ultimate proof for a causal association between statin use and reduced gallstone formation.”

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