

20. Gallbladder disease and factor V Leiden

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Q: "Is factor V Leiden connected with gallbladder disease?"

A: This is not known. An association between FV Leiden and gallbladder disease has never been looked for.

Factor V is a clotting protein and factor V Leiden is an abnormal factor V clotting protein. Other than being involved in clotting, factor V does not have any other known functions. Since factor V Leiden leads to an increased risk of thrombosis, gallbladder problems in patients with factor V Leiden could arise, if the vein that drains the blood from the gallbladder, clots. Acute swelling of the gallbladder and pain could be the symptoms. Chronically clotted gallbladder veins could theoretically cause chronic pain and possibly a "dysfunctional gallbladder". Such clots in the gallbladder vein have not been described in the medical literature and it is therefore not known, if they occur. Judged by the fact that clots in other veins of the intestinal area (mesenteric-, portal-, and splenic vein thrombosis) are not common, one could speculate that clots in the gallbladder vein are also unlikely a common problem. I do not see any way how factor V Leiden could cause gallstones.

Gallbladder disease is one of the most common medical conditions in the United States. 6.3 million men and 14.2 million women aged 20-74 years have gallbladder disease. They have either undergone gallbladder removal for gallstones or other reasons, or still have their gallbladder surgery and have gallstones. This means that

- 1 in every 10 women have gallbladder disease
- 1 in every 22 men have gallbladder disease

Since factor V Leiden is very common (5 % of the U.S. population is heterozygous for FVL), the simultaneous occurrence of both, gallbladder disease and factor V Leiden, is also very common.

Personal comment: I doubt that there is much of an association between factor V Leiden and gallbladder disease. My suspicion is that the simultaneous occurrence of FVL and gallbladder disease is coincidental and not causatively related.