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Patients After Splenectomy: Old Risks and New Perspectives

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Abstract
The risks that arise after splenectomy can be divided in infectious and non-infectious. The link between splenectomy and these hazards remains partially unknown. Host defense against infection is altered after splenectomy and such individuals develop sepsis more easily and the infection has a fulminant course. Splenectomy is also a potential risk factor for several vascular complications that result from partial or total obstruction of an arterial or venous blood vessel. Furthermore, pulmonary hypertensioncan be a severe and sometimes fatal complication following splenectomy. Some authors also consider that malignancies, diabetes mellitus and acute pancreatitis are non-infectious complications after splenectomy. The most feared complication for splenectomized patients remains sepsis. The pathophysiology of sepsis is still controversial. Death in sepsis can occur due to either hyper-inflammation or "immune paralysis". Multiple experimental evidences link cellular and viral microRNAs with sepsis. We presume that miRNAs are also associated with the immunosuppression of the asplenic patients which leads to the high risk of deadly sepsis. Studying the expression level of circulating miRNAs in asplenic patients could help us better understand the post-splenectomy immunosuppression and develop new diagnostic and therapeutic tools.
Key words: splenectomy, microRNA, sepsis, viral microRNAs, OPSI