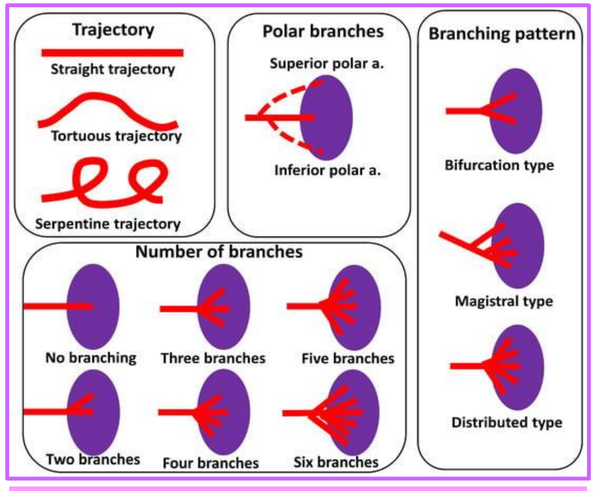
Use of ICG Imaging During Laparoscopic Splenectomy

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Patterns of splenic arteries

Introduction

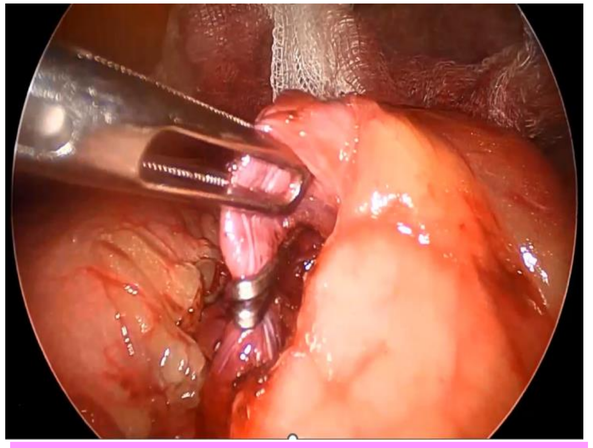
Knowledge of the SA aberrations is important for surgeons during splenic surgeries to prevent surgical mishaps . But in spite of good anatomical knowledge , variations cause surgical surprises. So intraoperatively NIR imaging is done to observe complete or partial obliteration of splenic artery.

Procedure

Intraoperatively during laparoscopic splenectomy, to confirm complete artery has been clamped, 3ml of ICG dye is administered intravenously and NIR imaging is started . If complete artery is clamped, spleen will not become green in color. If one of the branch artery is clamped, it will show green color along with the liver . Other patent branches are searched and ligated. If spleen is showing complete natural color under Near infra red (NIR) imaging, main trunk of splenic artery is ligated .

Inference

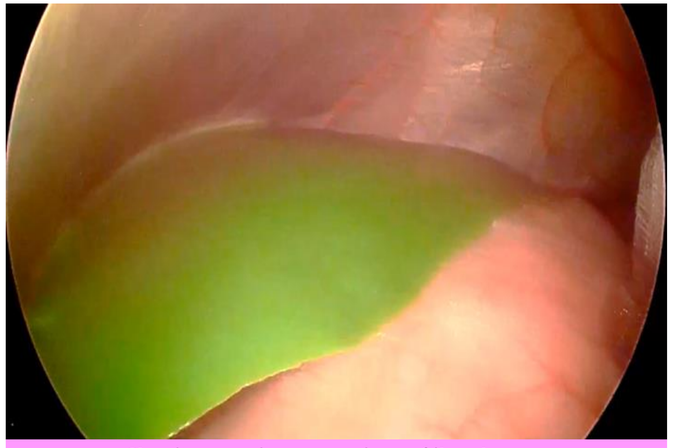
This practice of use of ICG has brought down incidence of hemorrhagic complications during laparoscopy. It has decreased the operative time as well. It is thus, very useful for a large volume spleen and a useful cue for novice surgeons attempting splenectomy.



Clipping of Splenic Artery



Post ICG no color changes are seen in spleen under NIR imaging



Simultaneously green colour of liver is seen



Partial uptake of ICG by spleen suggestive of partial Splenic artery blockage