PRESACRAL BLEEDING

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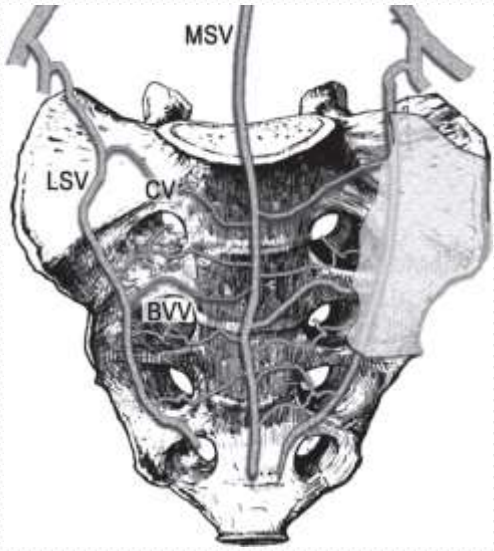
Presacral venous bleeding is an uncommon but potentially life threatening complication of rectal surgery.

During the posterior rectal dissection, it is recommended to proceed into the plane between the fascia propria of the rectumand the presacral fascia. Incorrect mobilisation of the rectum outside the Waldeyer's fascia can tear out the lower presacral venous plexus or the sacral basivertebral veins, causing what may prove to be uncontrollable bleeding .



MSV = middle sacral vein
LSV = lateral sacral vein
CV = communicating vein
BVV = basivertebral vein

- Whenever PSB occurs, the first temporary manoeuvre is direct pressure at the point of bleeding together with aspiration of the accumulated blood .
- Ligation of the internal iliac vein obstructs the drainage of the tributary veins, increasing the pressure in the PSVP and exacerbating the bleeding.

The possible strategies for dealing with this challenging life threatening complication

Packing techniques
Traditional pelvic packing
Silastic tissue expander
Perineal Sengstaken–Blakemore tube
Inflatable sterile saline bag
Breast implant sizer
Muscle tamponade

Tacking techniques
Metallic thumbtacks

The possible strategies for dealing with this challenging, life threatening complication

Topical haemostatic agents
Haemostatic matrix + adsorbable haemostat
Oxidised cellulose + cyanoacrylate glue
Bone cement
Bone wax
Direct/indirect electrocoagulation and suture
Muscle fragment welding
Spray electrocautery
Argon beam coagulation
Bipolar coagulation
Circular suture ligation
Other techniques

- Minimally invasive approaches have been increasingly applied to colorectal sugery and D'Ambra et al described a method to control PSB laparoscopically. The initial use of bipolar cautery or suturing is followed by cautery through an absorbable fabric mesh and if bleeding does not stop, indirect cautery through an epiploic appendix or a piece of omentum is performed. If the second step fails, a small scrap of bovine pericardium graft is finally tacked to thebleeding site.

- Although a multitude of strategies have been employed successfully to control PSB, it is imperative to consider the stability of the patient when using potentially time consuming techniques to control such haemorrhage. When a patient begins developing the lethal triad of acidosis, coagulopathy and hypothermia, the surgeon must always consider packing of the pelvis to rapidly control haemorrhage and prevent further deterioration

Algorithm for surgical management of presacral bleeding.

Compression and aspiration

Patient instability?

- Severe hypotension
- Hypothermia
- Coagulopath
- Acidosis

Algorithm for surgical management of presacral bleeding

NO Is the bleeding site clearly identified?

- Muscle fragment welding .
- Topical haemostatic agents .
- Tacking .

YES Packing with laparotomy pads

- Different techniques can be applied in a single patient sequentially.

Thank You .