Journal of Visceral Surgery (2017) xxx, xxx—xxx

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SURGICAL TECHNIQUE

Preperitoneal pelvic packing

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KEYWORDS
Preperitoneal;
Packing;
Pelvic trauma;
Damage control

Summary Severe pelvic traumatisms are associated with elevated mortality because of the high risk of exsanguination from multiple sources of bleeding. Treatment should encompass resuscitation, bone stabilization and hemorrhage control by arterio-embolization or surgery. Pre-peritoneal packing has been described in hemodynamically unstable patients who need damage control. The surgical technique of this simple and effective procedure is fully described by the authors with some complementary useful technical advices.

Introduction

Severe pelvic traumatisms are associated with elevated mortality because of the high risk of exsanguination from three sources of bleeding: arterial, venous and bone. Treatment should encompass resuscitation, bone stabilization and hemorrhage control by arterio-embolization or surgery [1]. Since the origin of bleeding is venous or osseous in more than 80% of cases, pre-peritoneal packing (PPP), initially described in Europe before being used in the United States, has found a place in hemodynamically unstable patients who need *damage control* [2,3].

Pelvic compressive binding should be placed routinely in patients with suspected pelvic lesions. Initial pelvic X-rays can be used to assess the grade of fracture while eFAST eliminates the presence of hemoperitoneum, which would impose the need for an abbreviated laparotomy to control the intra-peritoneal lesions, just before performing PPP.

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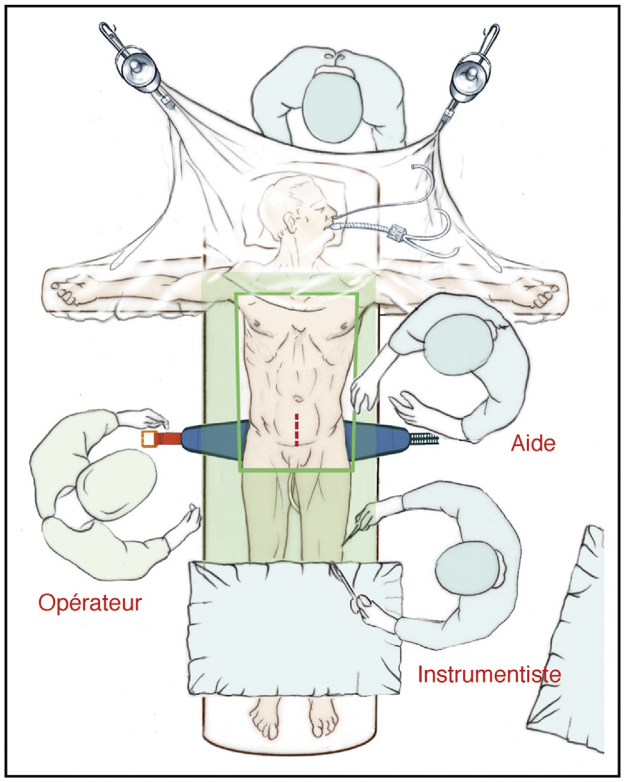
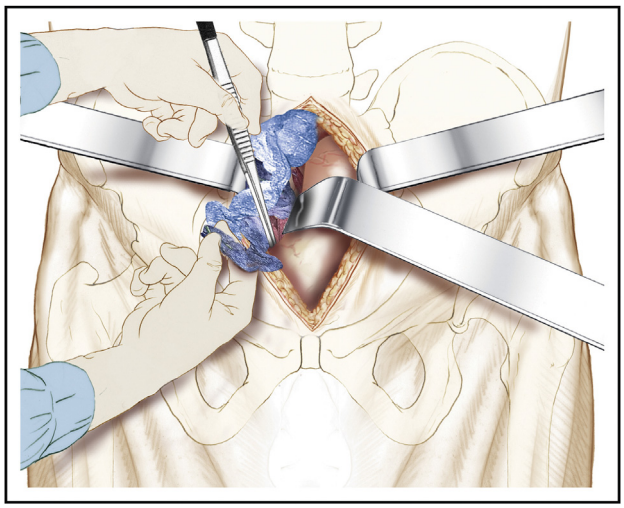
http://dx.doi.org/10.1016/j.jviscsurg.2017.08.006
1878-7886/



1 Patient position

The pelvic binder is removed at the very last minute. The entire abdomen must be prepared rapidly. A 6—8 cm vertical supra-pubic incision is made, including the midline fascia. The peritoneum is left intact (an inadvertent opening is not a problem but if this occurs, the operator can use it to make certain that there is no associated intra-peritoneal bleeding); *opérateur*: operator; *aide*: assistant; *instrumentiste*: scrub nurse or second assistant.



2 Bladder retraction and placement of the compressive pads

The pre-peritoneal space has generally already been dissected by the hematoma, thus facilitating the approach. The bladder is retracted to one side by a retractor. The hematoma is evacuated and the para-vesical space is explored and dissected with a finger along the pelvic concavity down to the sacro-iliac articulation. Abdominal pads or large swabs are then pushed into the thus-dissected space, packing from deep to superficial, in order to tamponnade and stop the bleeding.

Please cite this article in press as: Monchal T, et al. Preperitoneal pelvic packing. Journal of Visceral Surgery (2017), http://dx.doi.org/10.1016/j.jviscsurg.2017.08.006