

Laparoscopic management of retroperitoneal injuries from penetrating abdominal trauma in haemodynamically stable patients.

[Koto MZ](#)¹, [Matsevych OY](#)¹, [Mosai F](#)², [Balabyeki M](#)², [Aldous C](#)³.

Author information:

1. Department of Surgery, Sefako Makgatho Health Sciences University, Dr. George Mukhari Academic Hospital, Pretoria; University of KwaZulu-Natal, Nelson R Mandela School of Medicine Campus, Durban, South Africa.
2. Department of Surgery, Sefako Makgatho Health Sciences University, Dr. George Mukhari Academic Hospital, Pretoria, South Africa.
3. University of KwaZulu-Natal, Nelson R Mandela School of Medicine Campus, Durban, South Africa.

Abstract

Background:

Laparoscopy is increasingly utilised in the trauma setting. However, its safety and reliability in evaluating and managing retroperitoneal injuries are not known.

Aim: :

The aim of this study was to analyse our experience with laparoscopic management of retroperitoneal injuries due to penetrating abdominal trauma (PAT) and to investigate its feasibility, safety and accuracy in haemodynamically stable patients.

Methods: :

Over a 4-year period, patients approached laparoscopically with retroperitoneal injuries were analysed. Mechanism, location and severity of injuries were recorded. Surgical procedures, conversion rate and reasons for conversion and outcomes were described.

Results: :

Of the 284 patients with PAT, 56 patients had involvement of retroperitoneum. Stab wounds accounted 62.5% of patients. The mean Injury Severity Score was 7.4 (4-20). Among retroperitoneal injuries, the colon (27%) was the most commonly involved hollow viscera followed by duodenum (5%). The kidney (5%) and the pancreas (4%) were the injured solid organs. The conversion rate was 19.6% and was mainly due to active bleeding (73%). Significantly more patients with gunshot wound were converted to

laparotomy (38% vs. 9%). Therapeutic laparoscopy was performed in 36% of patients. There were no recorded missed injuries or mortality. Five (9%) patients developed the Clavien-Dindo Grade 3 complications, three were managed with reoperation, one with drainage/debridement and one with endovascular technique.

Conclusion: :

Laparoscopic management of retroperitoneal injuries is safe and feasible in haemodynamically stable patients with PAT. However, a high conversion rate indicates difficulties in managing these injuries. The requirements are the dexterity in laparoscopy and readiness to convert in the event of bleeding.

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