Chirurgia (Bucur). 2013;108(5):652-658

Colon Traumatic Injuries – Factors that Influence Surgical Management

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Abstract

Background: This study sought to evaluate current trends in surgical management of colon injuries in a level I urban trauma centre, in the light of our increasing confidence in primary repair.

Methods: Our retrospective study evaluates the results of 116 patients with colon injuries operated at Bucharest Clinical Emergency Hospital, in the light of some of the most commonly cited factors which could influence the surgeon decision-making process towards primary repair or colostomy.

Results: Blunt injuries were more common than penetrating injuries (65% vs. 31%). Significant other injuries occurred in 85 (73%) patients. Primary repair was performed in 95 patients (82%). Fecal diversion was used in 21 patients (18%). Multiple factors influence the decision-making process: shock, fecal contamination, associated injuries and higher scores on the Abdominal Trauma Index (ATI) and Colon Injury Scale (CIS). Colon related intra-abdominal complications occurred in 7% of patients in whom the colon injury was closed primarily and in 14% of patients in whom a stoma was created, ATI having a predictive role in their occurrence. The overall mortality rate was 19%.

Conclusions: Primary repair of colon injuries, either by primary suture or resection and anastomosis, is a safe method in the management of the majority of colonic injuries. Colostomy is preferred for patients with ATI ≥ 30 and CIS ≥ 4. Surgical judgment remains the final arbiter in decision making.

Key words: colon trauma, primary repair, diversion

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