

Diagnostic peritoneal lavage in the evaluation of abdominal trauma using the dipstick

Abstract:

OBJECTIVE: To determine the accuracy and sensitivity of diagnostic peritoneal lavage in the assessment of intra-abdominal injury using the dipstick method. **DESIGN:** Prospective study, involving the performance of diagnostic peritoneal lavage in the out patient department and surgical wards prior to surgical intervention. **SETTING:** Kenyatta National Hospital-General Surgical and Orthopaedic wards and outpatient department. The study was conducted over a duration of six months, starting from January 1995 to July 1995. **RESULTS:** Ninety six patients with penetrating (68) and blunt (28) abdominal trauma underwent diagnostic peritoneal lavage as evaluation of the severity of abdominal trauma. Dipstick (combur 9 strips) was used to evaluate lavage effluent for red blood cells, white blood cells, protein and bilirubin. Forty three patients had positive diagnostic peritoneal lavage (DPL) results, of which 40 (93%) had positive findings at laparotomy and three (7%) had negative findings at laparotomy. The remaining 53 patients had negative DPL results and were managed conservatively. One patient with a negative DPL result became symptomatic and had a positive laparotomy. Conservatively managed patients were discharged after 24 hours observations without any complications. DPL had an accuracy and sensitivity of 93% and specificity of 98%. **CONCLUSION:** Diagnostic peritoneal lavage is a cheap, safe and reliable method for assessment of abdominal trauma. The method is easy to perform by trained junior doctors in the OPD, or as a bedside procedure. Use of this method reduced negative laparotomy rate from 50% to 6.9% and average duration of stay from 6.5 days to 1.9 days. This method is recommended as a basic tool in the assessment of abdominal trauma patients