Electric Current Causing Sigmoid Perforation: Case Report.

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ABSTRACT

Post electric burn sigmoid perforation is a rare but dreadful complication. It can lead to increased chances of mortality/morbidity if any delay is made during diagnosis or active management. We report a case of electric current burn on left hand, forearm, arm and shoulder with perforation of sigmoid colon with successful management by primary closure.

Key words: Electric current, Perforation Peritonitis, Sigmoid perforation.

INTRODUCTION

Sigmoid perforation due to electric current injury is a rare entity. Previously few cases of enterocutaneous fistula following electric current were reported.[1] Extensive medline search revealed very limited cases of electric current induced enteric perforations.[2,3] Such enteric perforations has a potential to progress as haemorrhagic necrosis of the intestines/gallbladder, liver failure, gastrointestinal haemorrhage from stomach and duodenal ulcers, curling ulcers, acute appendicitis, pancreatitis, small bowel perforation, splenic injuries, and mesenteric abdominal trauma.

CASE REPORT

A 31 year-old male, electrician (by occupation) presented in emergency department within 6 hours of history of high tension electric current burn on left hand, forearm, arm, shoulder with severe abdominal pain. He sustained electric current burn accidently after touching electric cable. He didn’t carry any significant past history. On examination he appeared dehydrated having tachycardia (100/min). There was entry wound on left hand and exit wound on left lower abdomen. He had second degree deep burn on left upper limb. There was no other burn injury. Abdomen was distended, tender and resonant on percussion. On investigation Haemoglobin: 13.0gm%, TLC: 14,500cells/cu.mm, SGOT/SGPT: raised, urine (routine/microscopy): few RBC were present. On ECG there was sinus tachycardia and radiological investigation of abdomen revealed gas under both domes of diaphragm. He was diagnosed as acute generalized peritonitis because of hollow viscera perforation. Immediate exploratory laparotomy was performed.

There was about 500cc of blood mixed serosangious fluid in peritoneal cavity. Stomach, small and large intestine was erythematous, congested and edematous. Solid viscera were congested and erythematous. There was perforation of size 1.5x 1.5 cm in middle part of sigmoid colon. The margins of perforation were blackish and necrosed [Figure1]. There was minimal contamination in left paracolic gutter and pelvis. Freshening of margins of sigmoid colon was done and primary closure was done. Left paracolic drain was kept.

DISCUSSION

Electrical burn patients account for approximately 5% of the hospital admissions in major burn
Visceral injuries are rare in electrical burns victims, but they should be suspected in an electric current injury, especially in cases of high voltage currents. To avoid diversion colostomy prompt diagnosis with immediate active management to be done in patients suspected perforation peritonitis provided the patient presents within 12 hours.

REFERENCES


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