Post-traumatic retroperitoneal colonic injury presenting as gluteal abscess

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We report an 8-year-old boy who sustained blunt retroperitoneal right colonic injury in a vehicular accident and presented with gluteal abscess. Surgical exploration revealed perforated posterior wall of ascending colon with surrounding retroperitoneal abscess communicating with the gluteal region. Right hemicolectomy with drainage of retroperitoneal and gluteal collections resulted in satisfactory recovery. [Indian J Gastroenterol 2004;23:151-152]

Key words: Colon injury, retroperitoneal abscess

Blunt colonic injury presenting as gluteal abscess is rare in children. Its etiopathogenesis is explained by direct contamination of the retroperitoneum due to perforation of the retroperitoneal colon, resulting in spread of sepsis into the gluteal region through natural abdominal wall defects. A positive psoas stretch test, the nature of discharge, presence of associated abdominal symptoms, and an intra-abdominal fluid collection on radiological evaluation provide clues to the diagnosis.

An 8-year-old boy presented with fever, pain and foul-smelling discharge from the right gluteal region, not responding to surgical drainage done two days back with a provisional diagnosis of gluteal abscess. Six days back the child was hit by a motorcycle on the right side of the abdomen. He had persistent abdominal pain and was on conservative treatment at a primary health center but was referred in view of development of gluteal abscess along with sepsis.

On examination the child appeared toxic and pale, with pulse rate 120/min, BP 110/70 mmHg, moderate dehydration and body temperature 38°C. On local examination there was a small crural incision in the right gluteal region, with tender, fluctuant swelling. Local exploration suggested presence of deepseated cavity draining feculent discharge. Movements of the right lower limb were painful and restricted at the hip joint. Abdominal examination revealed mild tenderness in the right iliac fossa on deep palpation. Chest and neurological examination revealed no abnormality.

Investigations: hemoglobin 8 g/dL, WBC 22,000/cmm (neutrophils 94%), normal renal and liver function tests. Culture of pus from the gluteal region revealed growth of enteric organisms, mainly Escherichia coli. Plain roentgenogram of the chest, abdomen, pelvis and spine suggested no abnormality. Ultrasonography showed fluid collection in the right retroperitoneal space.

Surgical exploration revealed perforation of the posterior wall of the mid-descending colon with surrounding retroperitoneal collection communicating with the gluteal region through the sacrosciatic foramen. There was no other intra-abdominal injury. Right hemicolectomy with ileo-transverse anastomosis along with tube drainage of retroperitoneal collection was done. The gluteal abscess was drained through a separate incision. The postoperative period was uneventful and the child recovered satisfactorily. He is doing well six months later.

Colonic injury is a rare complication following blunt abdominal trauma. A few cases with colonic pathology presenting as retroperitoneal effusion or gluteal abscess have been reported in literature. A review of literature suggests extra-abdominal spread of intra-abdominal sepsis through two possible routes: direct soft tissue extension or through natural abdominal wall defects, mainly the femoral canal, obturator foramen, sacrosciatic foramen, and along the psoas muscle behind the iliofemoral vessels into the thigh.

Radiological abnormalities have been reported in 40%-90% of cases with retroperitoneal effusion. As experienced in the present case, the presence of retroperitoneal effusion on ultrasonography provides a clue to the diagnosis. Similarly the presence of retroperitoneal abscess may be indicated by abnormal psoas shadow, scoliosis or a soft tissue mass on plain abdominal roentgenogram. Elevation or fixation of diaphragm, pleural effusion or bursal atelectasis on chest X-ray point towards the diagnosis. The presence of a typical gas pattern in subcutaneous and intermuscular planes on plain roentgenogram of the pelvis and abdomen indicate presence of intra-abdominal sepsis.

A high mortality of 93% has been reported with delayed diagnosis and local drainage alone. The type of surgical intervention depends on the degree of peritoneal contamination, the site and grade of colonic injury, presence of associated intra-abdominal injuries, and the general physiological status of the patient. Right hemicolectomy with adequate drainage of retroperitoneal and gluteal collections after adequate resuscitation and with good postoperative care resulted in satisfactory recovery in the present case.

References
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