Hemiplegia — an unusual complication of appendectomy

A case report

M. V. McCORMICK, J. J. HEYDENRYCH, J. L. LE ROUX

Case report

A 12-year-old boy was admitted to Tygerberg Hospital complaining of abdominal pain and vomiting of 2 days' duration. He was anorexic and also complained of a sore throat. Examination revealed an ill child with a temperature of 38.4°C. The pulse rate was 124/min, haemoglobin 15 g/dl and the abdomen had maximal and rebound tenderness in the right iliac fossa. A pre-operative diagnosis of appendicitis with perforation was made. The white blood cell count was 20,0 x 10^9/l with 80% neutrophilia. The urine was normal. Cardiovascular, respiratory and neurological examinations revealed no abnormalities. Pre-operative resuscitation included administration of intravenous fluids and antibiotics (ampicillin and metronidazole). There was no electrolyte imbalance.

At operation the appendix was removed through a right paramedian incision; it had perforated and there was moderate soiling in the paracolic gutter and pelvis. Intra-operative peritoneal lavage with saline was carried out. The wound was drained with a Silastic corrugated drain.

The patient's general condition was much improved on the first postoperative day. However, on the second postoperative day there was acute onset of a right hemiparesis. Neurological examination revealed total right-sided hemiplegia with associated right 7th nerve palsy. Computed tomography of the brain showed non-specific changes which included flattening of the anterior horn of the left ventricle. Blood cultures on three successive occasions were all negative, the erythrocyte sedimentation rate was 25 mm/1st h (Westergren) and the white cell count 11,0 x 10^9/l.

It was presumed that there was a small septic embolus in the region of the internal capsule and gentamicin 60 mg 8-hourly was administered. There was no electrolyte imbalance.

A detailed search of the literature revealed no report of a total hemiplegia developing after an appendectomy as in our case.

Metastatic abscess formation from septic emboli is also one of the more unusual complications of appendicitis complicated by perforation and peritonitis. Theoretically this could occur in the brain. However, one would expect any micro-embolus to drain to the liver in the first instance. To bypass the liver one would have to assume that the embolus drained via the lumbar vein or inferior vena cava and, in addition, assume the presence of a small septal defect. An echocardiogram was unfortunately not done on our patient to exclude or confirm this possibility.

An air embolus from the intravenous infusions is another remote possibility. There was no evidence to suggest that this was the cause of the hemiplegia nor were there any other complications of intravenous therapy.

A final possibility is that the hemiplegia was not related to the appendectomy per se and may have been due to a minor cerebrovascular accident, which is extremely rare in children operated on for acute appendicitis.

REFERENCES

Posterior dislocation of the sternoclavicular joint associated with major spinal injury

A case report

J. A. LOUW, J. A. LOUW

Summary

A case of posterior dislocation of the sternoclavicular joint associated with a T3/4 fracture-dislocation and paraplegia is reported. This unusual injury is readily overlooked. In spite of the high demands on the upper limbs made by the paraplegic patient, conservative management yielded an excellent result in this case.

Fractures and dislocations of the thoracic spine should always arouse suspicion of associated injuries of the thoracic cage and shoulder girdle. These include fractures of the sternum, rib fractures, and fractures and dislocations around the shoulder and clavicle. It is important to recognise these injuries early and treat them effectively, because the rehabilitation and future mobility of the paraplegic patient depend to a great extent on healthy and strong upper limbs.

Case report

A 30-year-old black man sustained the following injuries in a road accident: posterior dislocation of the left sternoclavicular joint (Fig. 1); fracture-dislocation of the spine at the T3/4 vertebral level, with total paraplegia; compound fracture of the left olecranon process; and compound fracture of the left ankle.

Septic wounds and abrasions of the scalp and the left shoulder made early surgical intervention on the left sternoclavicular joint and the spine unwise. There was no evidence of retrosternal pressure, and therefore no attempt was made to reduce the medial end of the clavicle. The elbow and ankle joints were effectively restored within 2 months. Rehabilitation of the patient's left shoulder started 3 weeks after his injury when all pain had subsided, and consisted of passive and active mobilisation of this joint. Total paraplegia persisted and stability of the spine was gained after 3 months in bed.

The patient's rehabilitation in a wheelchair was unhampered by the sternoclavicular dislocation. Within 6 weeks of being out of bed he was able to lower himself from his wheelchair onto the floor and back again without any assistance. He could also pivot

Fig. 1. Ten-degree anteroposterior zonogram of the sternum and medial portions of the clavicles. The medial end of the left clavicle is displaced inferiorly and medially.