CASE REPORT

Traumatic hemisomato-tmesis: a case report and review of the literature

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SUMMARY

A case of traumatic hemisomato-tmesis is presented. The line of complete transection passed obliquely from the suprapubic skin to the lumbosacral junction. There were associated visceral injuries. We describe our experience of such a case and review the surgical options in the light of the current literature.

INTRODUCTION

Traumatic hemisomato-tmesis is a very rare injury in peace time, with most patients dying before they reach hospital. With improved emergency care it is possible that in the future such a patient may achieve long-term survival. We describe our experience of such a case and review the treatment options in the light of the limited available literature.

CASE REPORT

A 20-year-old-woman attempted to commit suicide by throwing herself in front of a moving train. She had a history of behavioural problems and had previously taken two drug overdoses. On reaching hospital she was found to have sustained a complete corporal transection. The line of transection passed obliquely from the suprapubic skin towards the lumbosacral junction with significant skin loss of her back. The lower limbs
and pelvis were separate and intact. There were no other injuries and the patient was fully conscious. Initial observations revealed a pulse rate of 100 beats per min and a systolic blood pressure of 50 mmHg. There was significant bleeding at the site of transection from the spinal muscles and bone but only a small amount from the common iliac arteries which were in spasm. The arteries were clamped and the patient resuscitated. She was aware of the nature of her injury and wished for further treatment.

Under general anaesthesia the bladder, vagina and lower rectum were found to have been avulsed and a 40-cm segment of terminal ileum perforated and torn from its mesentery. The damaged small bowel was resected and an end-to-end anastomosis performed. The sigmoid colon was brought out as an end colostomy and both ureters mobilized and brought out separately as end ureterostomies (Fig. 1). The common iliac vessels were transfixied. In view of the extensive skin loss of her lower back the remains of the left iliac crest, sacrum and fifth lumbar vertebra were excised to allow the viable anterior flaps to meet the reduced posterior flap. The estimated blood loss during the 3-h operation was 101. She died 2 h later and we ascribe this to a combination of hypovolaemia, cardiac arrhythmia and biochemical imbalance.

![Fig. 1 Line diagram of patient at the end of the operation to show position of end-colostomy and end-ureterostomies.](http://emj.bmj.com/)

**DISCUSSION**

We are unaware of any similar reports of traumatic transection. The lesser injury of hemipelvic section has infrequently been described but its overall incidence and mortality is unknown (Rodrigues-Morales et al., 1983). Open fracture of the pelvis may be associated with a 50% mortality (Rothenberger et al., 1978). Baker et al. in 1970 reported a case of severe crush injury which subsequently required a translumbar amputation. Elective hemicorporectomy has been irregularly reported since 1960 (Kennedy et al., 1960). It is believed that up to 30 may have been performed to date for advanced sacral and pelvic malignancy, osteomyelitis, or skin ulceration (Yancey et al.,
procedure as would have we were and patients apparently hopeless hemorrhage, may have treatments and circumstances. The toxaemia. to achieve skin physiotherapy and acid-base balance might be be adjusted appropriately. The reduction in muscle mass may have an effect on the body's ability to regulate circulating volume and maintain acid-base balance (Elliott & Alexander, 1982). Marked changes have been reported in cardiac and respiratory function, thermoregulation, regional ventilation and gas exchange (Lamis et al., 1967; Grimby & Stener, 1973; Bake & Grimby, 1974).

Had our patient survived, the post-operative period was likely to have been eventful. The mortality of patients after open pelvic fracture is reported as 50% due to haemorrhage, sepsis and renal failure (Rothenberger et al., 1978). Death after elective hemicorporectomy has been caused by recurrent disease, pulmonary oedema and toxaemia. The patient reported by Baker et al. (1970) had a stormy post-operative course and subsequently required numerous procedures over a 6-month period to achieve skin cover. Rehabilitation is demanding on the patient and staff, consisting of physiotherapy and occupational therapy and the development of suitable 'bucket' prostheses which may eventually allow limited walking (Easton et al., 1963; Delateur et al., 1969; Davis et al., 1975).
REFERENCES


