IMAGES IN EMERGENCY MEDICINE

Spectacular Retroperitoneal Impalement

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A 47-year-old woman presented with a history of an accidental fall against a glass door at home, causing a 15 cm-wide wound on the right gluteal region and hematuria. General health was good: blood pressure115/70 mmHg with a heart rate of 100 beats/min; red cell count 4.460 x103/100 mL; hemoglobin concentration 10 g/100 ml; and hematocrit 31%.

Computed tomography of the thorax and abdomen (Figure) showed the presence of a foreign body penetrating the right gluteal region and extending along the retroperitoneum. The object had passed across the entire longitudinal diameter of the right kidney. A concomitant retroperitoneal hematoma in the right perirenal space and pelvis was present.

At emergency laparotomy a 25cm piece of glass was extracted from the gluteal wound after right nefrectomy and suture of a 2 cm laceration of the suprarenal inferior vena cava.

The postoperative course was uneventful.

Impalement injuries are rare and may occur either as a result of fall or collision of the human body against an immobile object or by means of a mobile object penetrating a stationary subject. They often pose particular challenges in surgical management. Mortality for penetrating abdominal vena cava injury is 36%-66%.¹ Admission hypotension, suprarenal vena cava injuries and association with other visceral and/or other major vascular injuries are predictive of mortality.²

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Figure. A reconstructed image of computed tomography of the thorax and abdomen with the patient in prone position, showing the piece of glass passing through the right kidney.

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