

## Spectacular Retroperitoneal Impalement

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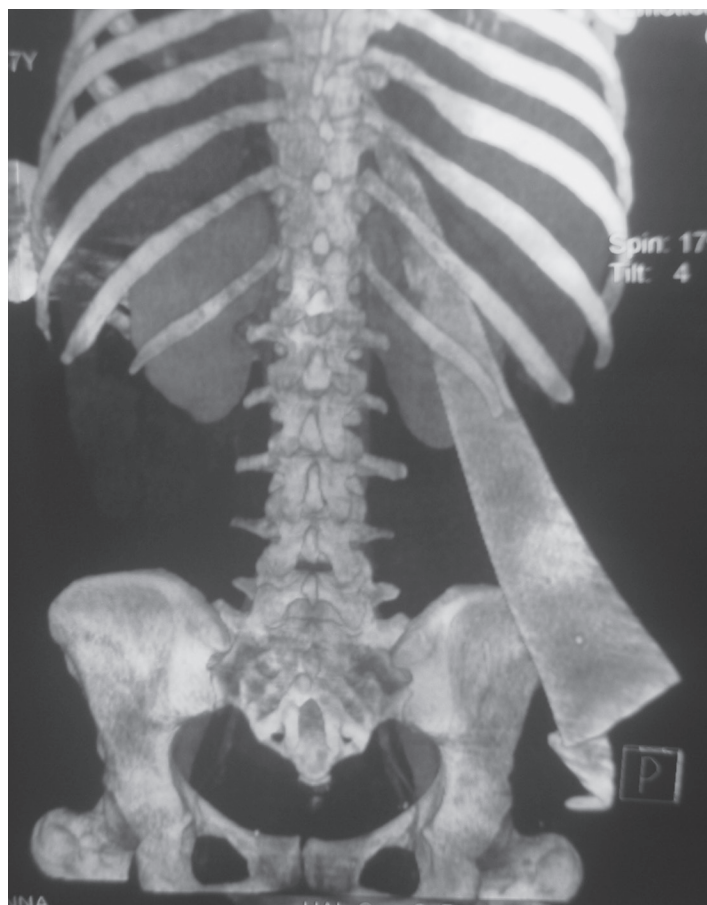
A 47-year-old woman presented with a history of an accidental fall against a glass door at home, causing a 15 cm-wide wound on the right gluteal region and hematuria. General health was good: blood pressure 115/70 mmHg with a heart rate of 100 beats/min; red cell count  $4.460 \times 10^3/100$  mL; hemoglobin 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 nephrectomy 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%.<sup>1</sup> Admission hypotension, suprarenal vena cava injuries and association with other visceral and/or other major vascular injuries are predictive of mortality.<sup>2</sup>



**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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## REFERENCES

1. Hansen CJ, Bernadas C, West MA, et al. Abdominal vena caval injuries: outcomes remain dismal. *Surgery*. 2000; 128:572-8.
2. Kuehne J, Frankhouse J, Modrall G, et al. Determinants of survival after inferior vena cava trauma. *Am Surg*. 1999;65: 976-81.