

Case Report

Impalement – The Walking Stick Pointing at A Kidney Tumor: A Case Study

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Received: 11 June 2019; **Accepted:** 17 June 2019; **Published:** 14 August 2019

Keywords: Kidney; Tumor; Transpelvic Impalement; Urogenital Trauma

1. Introduction

Since the very beginning of medical case reports, impalement has left MDs as well as laymen in fascination. Especially non-lethal injuries, penetrating vital organs without killing seem to impress people most. It may be the extraordinary luck or even the ability to live on with part of our body destroyed, which fascinates us. We might recall the case of M. Phineas P. Gage, the American railroad construction worker, whose frontal lobe was punctured by a large iron rod and still continued to live for another 12 years. In the Case of M. G. not only surviving the accident interested medical society, but especially the effects of the injury towards his personality and behaviour have created many discussions and brought new insights to neurology and behavioural studies.

2. Case Report

We report the case of an 82 old-year man admitted to our university hospital after an accident during choir practice for an upcoming ABBA-Edith Piaf concert. During that practice session, the stage on which the singers were standing collapsed and led to the injury of 6 singers.

Our patient was found on the site by the rescue team sitting upright. He was immediately immobilized by a vacuum rescue mattress and brought to our emergency department via helicopter. He presented as a 82 year old man with normal vital signs, GCS 14/15, haemodynamically stable, with a small amount of lumbar pain, and a light-weight metal stick (approx. 4 cm in diameter) piercing the right para scrotum (Figure 1) The length of the stick was

unknown at the time of presentation. A foreign body in the left flank was palpable. No head trauma or other injuries were detectable. We decided to perform a CT scan which showed a stable thoracic spine fracture Th 9 and a metal rod passing from the right para scrotum to the left kidney, without injuring the rectum, the bladder, the iliacal vessels, the intestines or the kidney. The cranial limitation of the rod was approximately 3 cm caudal of the spleen. Additionally, a 6 × 5 cm kidney tumor was detected on the lower left kidney (Figure 2). During explorative laparotomy, no intrabdominal injury was found. Urethral damage was ruled out after performing urethrocytostomy. The rod was then extracted from the body by smooth rotational movement and applying longitudinal traction (Figure 3) During the extraction there was no resistance or additional blood loss. A drain was left in the former impalement channel and prophylactic antibiotic therapy was established.



Figure 1: Parascrotal impalement.



Figure 2: CT scan – impalement trajectory and kidney tumour.



Figure 3: Walking stick.

Postoperative development was uneventful without complications. The drain was removed on the third day after surgery and the patient was discharged on the fifth. The spine fracture was treated conservatively. Concerning the kidney tumor open, retroperitoneal nephrectomy has been performed.

2. Discussion

General principles of management include: the impaling object must be stabilized and manipulation should be avoided during transport. In order to extract the foreign body under direct sight, an extensive exposure is mandatory and may be achieved by various incisions, even unconventional ones [1]. Antibiotic prophylaxis is established in most cases to avoid infectious complications [2]. To rule out urethral injury urethroscopy may be performed, especially in case of macrohematuria. If blood at the meatus or penile haematoma is missing, an urethral injury is unlikely. Following catheterization may be safely performed without further evaluation. The diagnostic gold standard in urethral injury is dynamic retrograde urethrography [3]. In summary, impalement injury of the urogenital tract can lead to multi-organ injuries which commonly involve the urethra, urinary bladder, rectum or kidney [4]. In our case, none of those life-threatening injuries occurred.

3. Conclusion

Transpelvic impalement is a serious injury that usually requires multiple reconstructive operations and may lead to serious disability. This case illustrates an unlikely benign trajectory of a transpelvic impalement by an approx. 45 cm long and 4 cm wide rod.

References

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Citation: Francois Daniel J.P. Leboutte, Hans Helge Seifert, Nicolas Clément, Saladin Helmut Alloussi. Impalement – The Walking Stick Pointing at A Kidney Tumor: A Case Study. *Archives of Clinical and Medical Case Reports* 3 (2019): 175-178.



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