

A Rare Anatomic Piece of a Horse Shoe Kidney

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ABSTRACT

Introduction: the authors describe an unusual case of HORSE KIDNEY of a piece present in the museum of anatomy of the Faculty of Medicine at the Eduardo Mondlane University (Mozambique).

Keywords: Horseshoe kidney; Malformation; Anatomy; Mozambique.

Introduction

During a restoration of the existing pieces in the anatomy museum theater, we found a horse shoe kidney.

There is no record of when this piece was prepared and deposited in the anatomical theater of Faculty of Medicine of the Eduardo Mondlane University. It

is presumed to have been placed in the first years of college, about 50 years ago. In the last 30 years we have not had a horseshoe in a sting during the dissections

Case report

The kidneys measured 8.5 cm from the upper to the lower pole, while the width of the right kidney was 4 cm and the left of 3.5 cm, 4 cm thick (Fig.1-3).



Figure 1. Horseshoe kidney (Anterior aspect)



Figure 2. Horse Shoe Kidney (Posterior aspect)

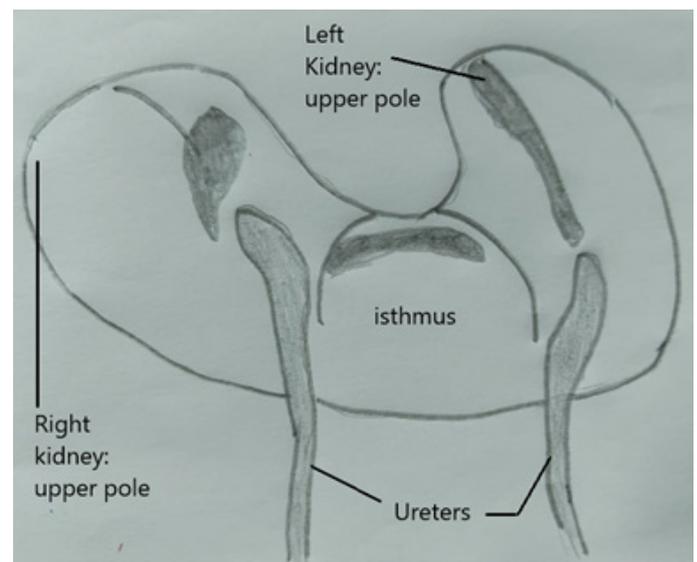


Figure 3. Horse show kidney scheme

Discussion

The Horse Shoe Kidney, a rare case and little is described in publications, it is a congenital malformation which developed during the fusion of the lower poles at the 5-12 mm embryonic stage, when the kidneys are in the true pelvis and the renal capsule has not yet matured. The isthmus is formed by the fusion of the right and left kidneys at their lower poles and resulted in a U-shaped kidney (Jean B, 1984) (Shyamal A, Bokariya P, Tarnekar A, 2012)

There are two theories to explain this malformation: a classic theory of mechanical fusion that occurs during the process of organogenesis, with fusion

of lower poles in midline and formation of a fibrous isthmus between them and a second theory, proposed that this anomaly is the result of a teratogenic process with abnormal migration of cells that form the isthmus (de la Garza *et al.*, 2009)

The Incidence is estimated to occur as one in 400-2000 live births with predominance in male, one in 300 pyelography and one in 1000 necropsies. (Júnior *et al.*, 2010)(Sadler TW, 2006)

As for its position, it is considered ectopic and is usually located in front of the large abdominal vessels (abdominal aorta and inferior vena cava) or behind a vessel (inferior vena cava) or both abdominal vessels.

Are asymptomatic and usually detected accidentally or more likely to be associated with symptoms (e.g., abdominal pain) and complications such as stones (nephrolithiasis) or infection (pyelonephritis) (Júnior *et al.*, 2010).

They are susceptible to trauma and do not need any treatment, but it is important to recognize their presence before any surgery in the abdominal cavity (Lucy Kerr & Stephanie Welter, n.d.)

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Mini Curriculum and Author's Contribution

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