

Horseshoe kidney with cysts and a single ureter: a case report

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ABSTRACT

Horseshoe kidney is the most common of all renal fusion anomalies, occurring in approximately 0.25% of the general population. Horseshoe kidney with only a single ureter is a rare anomaly. A 60-year-old man was admitted to hospital for routine health screening. His family history was negative for kidney diseases, and there was no abnormality in his physical examination. A computed tomography (CT) scan revealed an atypical horseshoe kidney with cysts and three-dimensional spiral CT reconstruction showed the presence of a single ureter. The patient has since been followed up for two years without any signs of clinical disease. We report a rare case of a patient with a horseshoe kidney with cysts and a single ureter that was diagnosed incidentally.

Keywords: genito urinary abnormalities, polycystic kidney diseases, cysts.

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INTRODUCTION

Horseshoe kidney is the most common of all renal fusion anomalies, occurring in approximately 0.25% of the general population. It is usually asymptomatic, but can be associated with nephrolithiasis, ureteropelvic junction stenosis, renovascular hypertension, polycystic kidney and polycystic liver.¹

Horseshoe kidney with only a single ureter is a rare anomaly. Associated extra-urinary anomalies have been described such as situs inversus totalis, and congenital scoliosis. There is a single report of neoplasia in a horseshoe kidney

that had pyelic fusion and a single ureter.² This case report describes the incidental diagnosis of a horseshoe kidney with a single ureter.

CASE REPORT

A 60-year-old man was admitted to hospital for routine health screening. His family history was negative for kidney diseases, and there was no abnormality in his physical examination. Abdominal ultrasonography revealed a horseshoe kidney with multiple cysts. A computed tomography (CT) scan revealed an atypical horseshoe kidney with cysts (Figure 1) and three-dimensional spiral CT reconstruction showed the presence of a single ureter (Figure 2). The patient has since been followed up for two years without any signs of clinical disease.

DISCUSSION

Horseshoe kidney is the commonest of all renal fusion anomalies. It is usually asymptomatic, but the affected individuals are prone to a variety of complications, such as stone disease, pelviureteric junction obstruction, trauma, infections and tumors. As a result of the abnormal anatomy, imaging and treatment vary substantially from that of the normal kidney.³

Horseshoe kidney with a single ureter is a rare anomaly. The aetiology of the malformation is unknown. Associated extra-urinary anomalies have been described, such as pyelic fusion and crossed single ureter.¹

We report a rare case of a patient with a horseshoe kidney with a single ureter that was diagnosed incidentally and in which the patient has remained asymptomatic after two years of follow-up.

Figure 1. Computed tomography (CT) scan revealed an atypical horseshoe kidney (large arrow) with cysts (thin arrow).



REFERENCES

1. Peres LAB, Ferreira JRL, Delfino VDA. Polycystic horseshoe kidney. *Nephrol Dial Transplant* 2007; 22:652-3.
2. Costa RP, Schaal CH, Navarro FC. Neoplasia in horseshoe kidney with pyelic fusion and crossed single ureter. *Int Braz J Urol* 2004; 30:319-20.
3. Yesilli C, Erdem O, Akduman B, Erdem Z, Gundogdu S, Mungan NA. Horseshoe kidney with pyelic fusion and crossed single ureter. *J Urol* 2003; 170:175-6

Figure 2. Three-dimensional spiral CT reconstruction showed the presence of a single ureter.

