

Cross Ectopia: Case Report

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Abstract: 65 years old female patient came to the hospital with back pain, hematuria, urine and blood analysis was requested. Then Computerized Tomography Urography (CTU) was requested.

Keywords: CTU, CFRE

INTRODUCTION

Essentially refers to an anomaly where the kidneys are fused and located on the same side of the midline. The estimated incidence is around 1 out of 1000 births [1]. There is a recognized male predilection with a 2:1 male to female ratio. More than 90% of crossed renal ectopic results in fusion.

CROSS ECTOPIA

Crossed fused renal ectopia is the second most common fusion abnormality of the kidney, with an estimated incidence of approximately 1:1300–1:7500 [2]. In crossed fused ectopia, one kidney crosses over to opposite side, and the parenchyma of the two kidneys fuse [2]. (Fig 1 – 2).



Fig. 1: Diagram shows cross ectopic kidneys

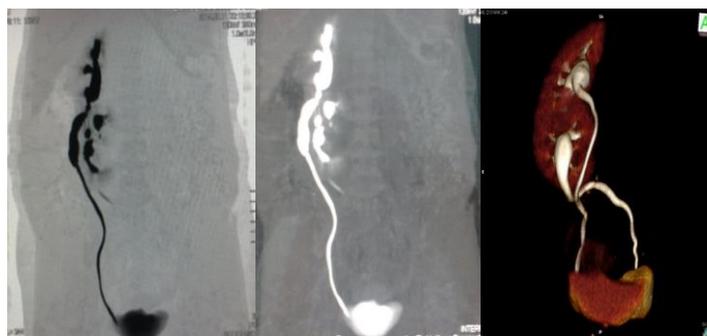


Fig. 2:3D CTU shows cross ectopic kidneys

CASE REPORT

65 years old female patient came to the hospital with back pain, hematuria, urine and blood analysis was requested. Then CTU was done showed that the two kidneys are in the right side and fused. The final diagnosis is cross fused renal ectopia Fig 1-2-3.



Fig. 3: CTU coronal shows cross ectopic kidneys

DISCUSSION

Crossed renal ectopia is classified into 4 main categories: crossed renal ectopia with or without fusion, unilateral crossed renal ectopia (with unilateral renal agenesis), and bilateral crossed renal ectopia (without fusion) [3]. In 85–90% of the crossed renal ectopia cases, the kidneys are partially or completely fused, hence given the name CFRE. CFRE is reported to be two times more prevalent in men than women [4]. Consistently, the patient we presented was also a young man. With respect to CFRE, six anatomical variations have been described [5], namely, inferior CFRE, sigmoid kidney, lump kidney, disc kidney, L-shaped kidney, and superior CFRE (Figure 2). While the inferior CFRE is the most frequent type observed, the superior CFRE is reported to be the least common. In the inferior CFRE type, the upper pole of the inferiorly situated crossed ectopic kidney is fused to the lower pole of the superiorly, normally positioned kidney. Another characteristic feature of CFRE is the three times more common occurrence of left-to-right ectopy [6]. Note worthily, in our case both kidneys were ectopic and the crossed ectopic right kidney was positioned superiorly with its lower pole fused to the upper pole of the left kidney. To our best knowledge, in the current literature, there is only one case reported with superior CFRE of the right kidney [7].

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