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# CASE REPORT

# UNUSUAL PRESENTATION OF A RARE CALYCEAL DIVERTICULUM

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**Abstract**
Calyceal diverticulum are congenital lesions of kidney that are very rare in nature. They are usually asymtomatic. We present a female who presented with right loin pain of chronic nature. On evaluation, she was found to have calyceal diverticulum in the interpolar region, on the posterior surface of the right kidney, which is rare. The patient was treated with marsupialization and obliteration of calyceal neck.

**Key-words:** calyces, diverticulum, unusual presentation

## INTRODUCTION

Calyceal diverticulum are cystic extensions of renal collecting system into normal renal parenchyma that communicating with main collecting system via a narrow channel. They are rare congenital lesions usually affecting the upper pole and are present on the lateral surface. We present an unusual case of calyceal diverticulum which is present in the interpolar region and on the posterior surface of right kidney. We have reviewed the literature and have failed to find any reported case of an interpole calyceal diverticulum. It is because of this rarity that this case is presented

## CASE HISTORY:

A 39 year old female presented with complaints of right loin pain for five years duration. There was no other significant urological or menstrual history. Clinical examination and routine blood investigations were normal. Ultrasonography [1] revealed a cystic lesion in the right kidney in the interpolar region, on the posterior aspect. Contrast enhanced computerized tomography scan revealed a cystic lesion of size 4x3 cm [figure1] with minimal contrast within it. Communication with the collecting system could not be confirmed or ruled out and hence could not differentiate between renal cyst and calyceal diverticulum [2]. Hence retrograde pyelogram [figure1] was done, which showed filling up of the cyst with contrast, confirming the diagnosis of calyceal diverticulum. It was unusually positioned in the interpolar region on the posterior aspect.

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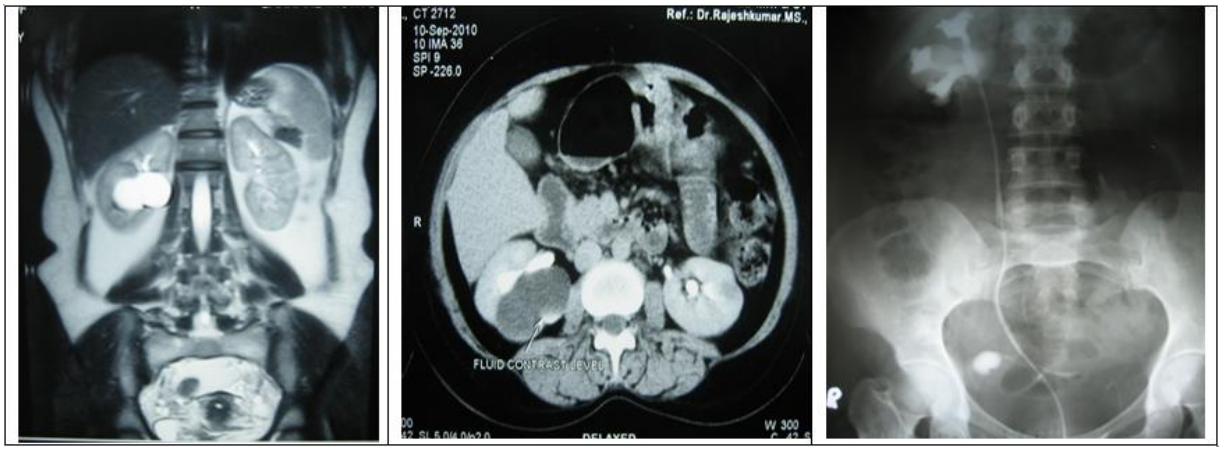


Figure 1: 1a. mri showing calyceal diverticulum in the interpolar region 1b. ct showing the same 1c. rgp picture demonstrating contrast entry into the diverticulum

The patient warranted intervention as she was symptomatic. On exploring the diverticulum was present on the posterior surface [figure 2] in the interpolar region. The diverticulum was opened and straw colored fluid let out. The lesion was marsupialized [figure 2] and haemostatic sutures made at the edges. Diverticular neck was identified, which was found communicating to pelvis [type 2 calyceal diverticulum]. The neck was over sewn. The patient recovered well after surgery

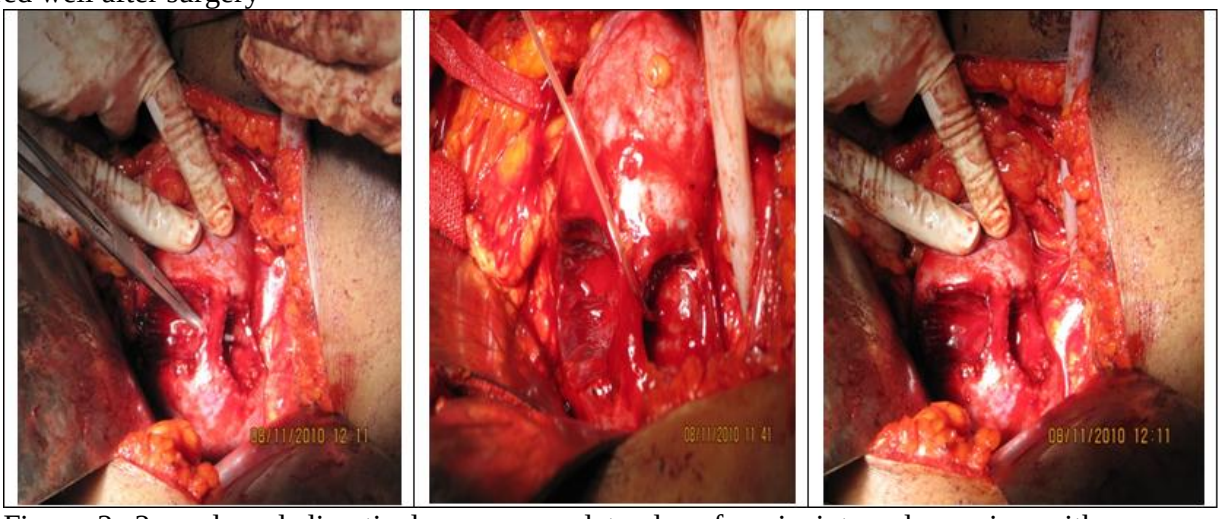


Figure 2: 2a. calyceal diverticulum seen on lateral surface in interpolar region with a common neck 2b. infant feeding tube inserted into the infundibular neck 2c. post marsupialization picture

## DISCUSSION:

The etiology of calyceal diverticulum may be congenital or acquired. It is considered to be congenital because the incidence is equal in children and in adults. The embryology is that at the five millimeter stage of the embryo, some of the third and fourth generation ureteral branches, which normally degenerate, may persist. As this division occurs more rapidly at the poles and to the periphery, the diverticula are more frequent at the poles and are laterally oriented. There are two types of calyceal diverticulum, type one is diverticulum communicating to calyces and type two is diverticulum communicating to pelvis. Only one third to half of the patients is symptomatic [3], the symptoms being haematuria, pain, calculi and infection. This case was presented because of an unusual presentation of a rare congenital anomaly, the calyceal diverticulum.

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