



CAUGHT BETWEEN A ROCK AND A HARD PLACE: COLOSSAL STONES IN A CONTINENT POUCH

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KEYWORDS :

INTRODUCTION:

Pouch lithiasis is not an uncommon complication of urinary diversion, and usually presents late after surgery. We present the case of a middle-aged female who presented with vague abdominal pain, and on examination was found to have large stones in a continent pouch, which compromised the function of the solitary kidney. She underwent successful open surgical removal of the stones and thereby was relieved of her symptoms.

Case Report:

A middle-aged Asian female presented to the outpatient department with chief complaint of vague abdominal pain and a palpable hard lump. On examination, she was found to have multiple abdominal scars (suggestive of previous surgery for creation of continent pouch, for exstrophy-epispadias), a catheterizable urostoma in the right iliac fossa and a palpable rock-hard lump which moved freely. Surgery for creation of the pouch was done three decades back; however, the patient was lost to follow-up. The patient was accustomed to emptying the pouch regularly with a 16 French catheter, and her urine output was approximately 1.5 litre per day. On imaging, the pouch was found to contain two large stones (Fig. No. 2), which were then removed via open surgery. Moreover, the stones were compressing the ureter of the solitary right kidney (Fig. No. 1), which led to hydronephrosis. The pouch was drained by a catheter, which was removed after 2 weeks. Her renal function also improved and reached its nadir value after 4 weeks.



Fig. No. 1: Figure showing the medial displacement and compression of the right ureter by the pouch stones, leading to right hydronephrosis (up to the level of the compression).

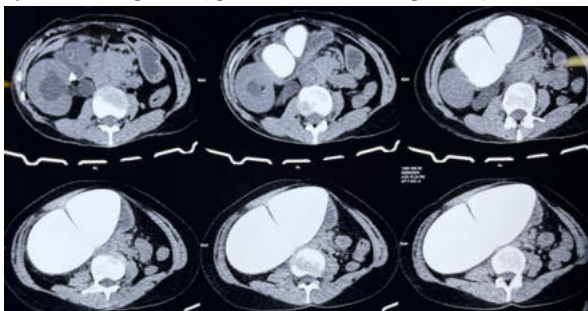


Fig. No. 2: Figure depicting the transvers extent of pouch stones, occupying an area more than the right hemi-abdomen, as evidenced by axial sections of computed tomography.

DISCUSSION:

Urinary diversions can lead to a variety of problems, including stoma occlusion by mucus, metabolic derangements, infection, renal derangements, and urolithiasis. The Koch pouch is associated with a

reported 4%–43% incidence of pouch stones, while the Indiana pouch diversion is associated with a 2.9%–13% risk^[1]. Several factors are involved, such as intestinal mucus secretion that serves as a nidus for crystal buildup or urea-splitting organisms that enhance the risk of struvite stone formation, or metabolic acidosis that encourages demineralization and raises calcium excretion^[2]. The majority of these stones are related to infection, regardless of the diversion. Risk factors for pouch stone formation include increased mucus retention, metabolic disturbances, recurrent infections or pouchitis, and urine pH. Renal function abnormalities may not be evident even in the presence of a massive stone burden^[3]. However, our case had renal compromise secondary to extrinsic compression of the right ureter.

CONCLUSION:

Continent pouch lithiasis is a known late complication of pouch creation, and patients must be educated about the need for pouch irrigation/drainage & regular follow-up, for earlier detection and treatment of this complication, in addition to monitoring any metabolic derangements or decline in renal function. Neglected pouch stones may lead to a large stone burden, which mandates open surgical extirpation in the form of open pouchotomy.

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