

Reno-gluteal fistula- A rare entity

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ABSTRACT

Renal calculus disease is one of the most common presentations in any urology outdoor. But a neglected renal calculus presenting as a reno-gluteal fistula is a rarity. A discharging sinus in the hip is often diagnosed as a gluteal abscess and managed accordingly. We present here a case which presented as a gluteal sinus and was subsequently diagnosed to be reno-gluteal cutaneous fistula and managed with a nephrectomy. The objective of this article is to highlight the diagnostic modalities and likely pathogenesis of reno-cutaneous fistulas.

Keywords: gluteal abscess, calculus, non-functioning kidney, reno-gluteal fistula, pyelonephritis

INTRODUCTION

Renal fistula to the skin is a very unusual occurrence. Spontaneous reno-cutaneous fistulae secondary to an asymptomatic renal calculus disease have been reported very rarely.^{1,2} Although, initial studies suggested that genitourinary tuberculosis is the most common cause of such fistulae, recent studies are more in the favour of a calculous non-functioning kidney as an etiological cause.^{1,2,3,4} Among the reno-cutaneous fistulae, hip is a very uncommon site; and wherever reported, the patients were initially diagnosed as having gluteal abscess which did not resolve after repeated incisions and drainage.

CASE REPORT

A 37 yr old woman presented to the surgical outdoor with complaint of a discharging sinus on the left hip since one year. She had associated dysuria and loss of weight since the past six months. She had been diagnosed as having gluteal abscess previously on three separate occasions and incision and drainage had been done, but without any relief.

Routine blood investigations revealed a raised serum creatinine of 1.8 mg%. Sinogram was performed and was suggestive of the sinus tract extending to the left renal area and the dye was seen extravasating via a tubular structure in left para-spinal area which was the ureter (fig 1).



Fig. 1: Sinogram showing the fistula tract and spillover of dye into the ureter

Intravenous pyelography was suggestive of multiple calculi in the left kidney. The 5 min. study showed normal nephrographic effect in the right kidney. The 15mins and 30 mins films were suggestive of normal right sided pelvicalyceal system with no excretion of the dye in the left pelvicalyceal system (fig.2). There was no function in the left kidney till 24hrs after contrast injection.



Fig. 2. 30 minutes IVP film showing normal right pelvicalyceal system, but no excretion of contrast from left kidney

Based on the above findings a diagnosis of left reno-gluteal fistula with left renal calculi with left non-functioning kidney was made. After pre-operative preparation, a simple nephrectomy with excision of the fistula tract was done. Post-operative course was uneventful and the sinus healed by 15th post-operative day. Histopathology of the resected specimen revealed chronic pyelonephritis (fig.3).

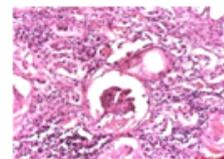


Fig. 3. Histopathology of resected kidney showing changes consistent with chronic pyelonephritis

DISCUSSION

Though renal fistulae are common to adjacent organs, the fistulae to the skin are very rare. The

implicated etiologies include genitourinary tuberculosis, chronic pyelonephritis, xanthogranulomatous pyelonephritis, neglected calculi, renal tumors and renal trauma; and iatrogenically, hysterectomies, PCNLs and drainage of cold abscesses.⁵ The common sites of renal fistulae are the gut, pleura, lungs, bronchi, and rarely skin. Common sites of reno-cutaneous fistulae are the lumbar triangle of Petit, lumbar quadrilateral of Grynfeltt, gluteus and very rarely, knee.⁵

The pathogenesis results from the calculous obstruction of the kidney which is associated with recurrent attacks of infection. This results in adhesions between the kidney and the viscera with pyonephrosis and subsequently, perinephric abscess. The abscess ruptures and the pus tracks down the path of least resistance resulting in a fistula.⁶ Almost in all cases the focus of infection is a non-functioning kidney and a simple nephrectomy with curettage of the fistula tract is the advocated treatment which results in the closure of the fistula.^{2,6,7}

CONCLUSION

This case report highlights the difficulty in diagnosing a case of reno-gluteal fistula owing to its rarity. Patient has to suffer through multiple incisions and drainage due to the misdiagnosis as gluteal abscess, and only when the sinus refuses to abate, do the clinicians order for sinographic/IVP studies which are diagnostic. Though tuberculosis is still the most common cause in developing countries, renal calculus disease is emerging fast a significant contributor to the etiology of this disease. The standard treatment option remains as nephrectomy with excision of the fistulous tract.

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