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# CT Fistulogram: Demonstration of Vasocutaneous Fistula, a Rare Complication Following Orchidectomy

HARSHIKA MITTAL[1], SENTHIL KUMAR AIYAPPAN[2], AISHWARYA V ATHANI[3]



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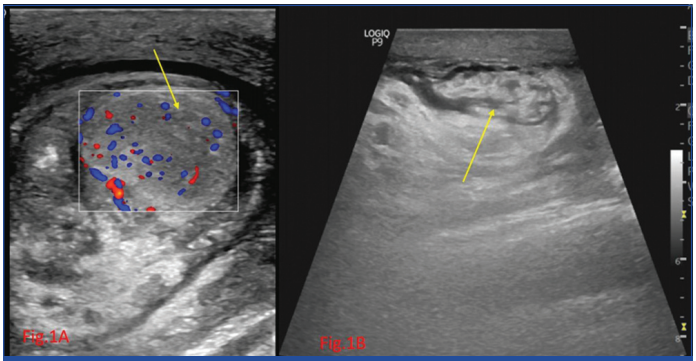
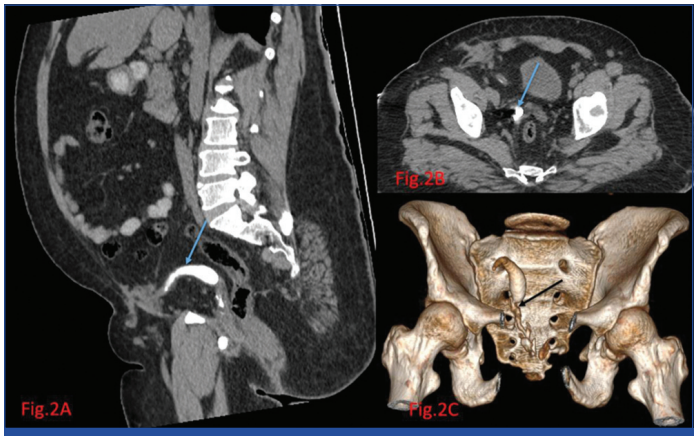
A 65-year-old male patient presented with complaints of swelling and pain over the right inguinoscrotal region for the past two weeks. The patient had no significant previous medical history and no past surgical history. There was no history of vomiting or diarrhea. Local examination revealed a warm, tender swelling in the right inguinoscrotal region. Blood investigations showed neutrophilic leukocytosis with normal liver and renal function tests. An abdominal and scrotal ultrasound (USG) was performed, which revealed right epididymoorchitis with a multiloculated septated collection within the scrotal sac suggestive of pyocele. The spermatic cord structures were thickened, indicating funiculitis [Table/Fig-1]. The patient underwent a right high orchidectomy, and the postoperative period was uneventful. Histopathology of the specimen showed features of acute inflammation. Seven months following the surgery, he noticed a serous discharge from the right inguinal region with mild swelling and pain at the postoperative site. No definite spermatozoa were identified in the discharge. He was referred for a plain Computerised Tomography (CT) abdomen to the radiology department. Since there was a small opening in the right inguinal region from which discharge was seen, non-ionic water-soluble iodinated contrast was injected through the opening, and a CT fistulogram was performed. The CT fistulogram demonstrated contrast opacification of a tubular structure reaching up to the right seminal vesicle, suggestive of the vas deferens. Hence, a diagnosis of vasocutaneous fistula was made [Table/Fig-2]. Magnetic Resonance Imaging (MRI) screening was also performed, confirming the CT findings [Table/Fig-3]. The prostate and the rest of the abdominal organs were normal. The patient was advised to undergo surgery, and sinus tract excision was performed. The patient is doing well with no evidence of discharge at the postoperative site.

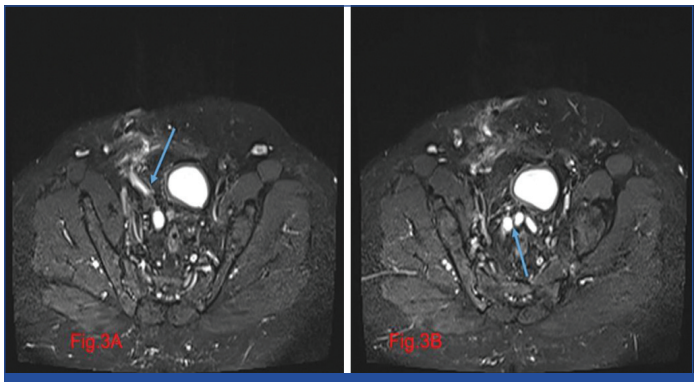



**[Table/Fig-1]:** Ultrasound image with colour Doppler Showing heterogenous echotexture of right testis with increased colour flow (yellow arrow in 1a) and thickened epididymis and spermatic cord structures (yellow arrow in 1b).

The fistulous communication between the vas deferens and skin is very rare. Only a few cases have been reported in the literature [1]. The causes are usually trauma following surgeries such as vasectomy, prostatectomy, orchidectomy, neurogenic bladder, urinary tract infection, or rarely congenital [1]. The first case was documented by Young in 1926 [1,2]. A case report published in 1992




**[Table/Fig-2]:** CT fistulogram image showing the vasocutaneous fistula with cutaneous opening in right inguinal region (blue arrow in 2a) and internal opening in right seminal vesicle (blue arrow in 2b). 2c: 3D reconstructed image demonstrating the fistula (black arrow in 2c).




**[Table/Fig-3]:** Axial STIR MRI image showing the fistulous tract with external opening in right inguinal region (blue arrow in 3a) and internal opening in right seminal vesicle (blue arrow in 3b).

by Thomas RB et al., describes only 16 cases of vasocutaneous fistulas, most of which occurred postoperatively, similar to this case [1]. The most common surgeries associated with this condition were orchidectomy or vasectomy [3,4]. The fistula can develop in the immediate postoperative period or even 10 years after surgery [1]. Yasumoto R et al., described a case of vasocutaneous fistula following scrotal injury; however, in this case, there was no history of injury [5]. Only one of the previously reported cases was congenital, but in this case, it was not congenital [1]. This case is unique as the CT fistulogram and MRI clearly demonstrated the fistula.

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**PARTICULARS OF CONTRIBUTORS:**
1. Junior Resident, Department of Radiodiagnosis, SRM Medical College Hospital and Research Centre, Kattankulathur, Chengalpattu District, Tamil Nadu, India.
2. Professor and Head, Department of Radiodiagnosis, SRM Medical College Hospital and Research Centre, Kattankulathur, Chengalpattu District, Tamil Nadu, India.
3. Junior Resident, Department of Radiodiagnosis, SRM Medical College Hospital and Research Centre, Kattankulathur, Chengalpattu District, Tamil Nadu, India.

**NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:**
Senthil Kumar Aiyappan,
Professor and Head, Department of Radiodiagnosis, SRM Medical College Hospital and Research Centre, Kattankulathur, Chengalpattu District-603203, Tamil Nadu, India.
E-mail: asenthilkumarpgi@gmail.com

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