

PELVIC FISTOULAS



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1. Purpose

The purpose of this paper is to illustrate the spectrum of imaging features of fistulas between the bladder and other organs of the pelvis.

2. Materials and Methods

13 cases of fistulas were examined using intravenous urography, cystography, barium enema, US, CT and MR, depending on the case.

The underlying disease was tumour in 5 cases, Crohn's disease in 3 cases, diverticulitis in 3 cases and radiation in 2 cases.



Figure 1. Cystogram of a vesicovaginal fistula showing leakage from the urinary bladder into the vagina.

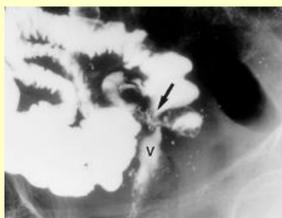


Figure 2. Small bowel radiograph after barium indicates irregular fistulous tract communication between the distal ileum and vaginal stump.



Figure 3. Sonogram of the pelvis demonstrating the fistula between the uterus and the bladder.



Figure 4. Ultrasound scan showing the fistulous track between bladder and uterus.

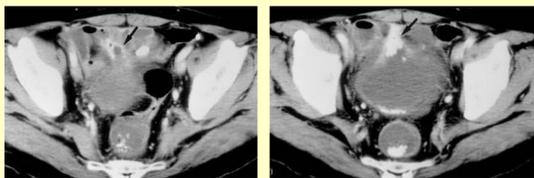


Figure 5. Small bowel CT sections reveal an irregular fistulous tract which causes the leakage and the retention of the contrast medium in the bladder.

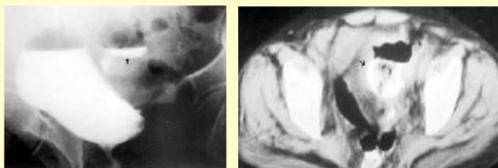


Figure 6. CT scan revealing air in the bladder and a small abscess cavity between the sigmoid colon and the bladder, thus demonstrating fistulous communication between the two.

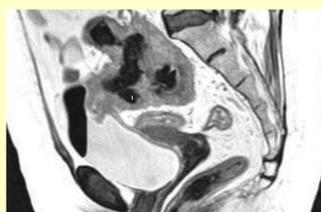


Figure 7. MRI scan shows the fistulous between bladder and bowel in a Crohn's disease patient.

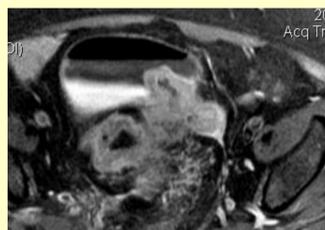


Figure 8. Contrast enhanced MRI scan of a patient with colon cancer, demonstrating a fistula between bladder and bowel.

3. Results & Discussion

In the conventional radiography methods that involved contrast agents, the fistulous tract frequently failed to fill, mainly because many fistulas were small, tortuous and obliquely oriented.

Ultrasound revealed the part of fistula in the urine bladder in all cases.

CT proved superior in detecting the fistulous tract, and it also provided additional information regarding the etiology of the fistula and the extent of extraluminal disease.

Rapid, heavily T2-weighted MR imaging also proved useful in the evaluation of occult fistulas.

4. Conclusion

Although a history of passing urine, feces, foul smelling air or discharge through an unfamiliar orifice usually indicates the presence of an intrapelvic fistula, actual demonstration of the fistulous tract and identification of its underlying cause may prove rather difficult and usually requires more than one imaging method.