

## POST APPENDECTOMY FAECAL FISTULA; A RARE COMPLICATION

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**ABSTRACT**

**Introduction:** Appendectomy is one of the most common abdominal surgeries in clinical practice. Complications seen are wound site infection, ileus, abscess, leak and fistula formation. Case

**Representation:** We present to you the case of enterocutaneous fistula that occurred after open appendectomy. **Discussion and Conclusion:** Faecal fistula should be suspected in patients who had difficult appendectomy. CECT abdomen is the investigation of choice and most patients can be managed conservatively.

**KEYWORDS :****INTRODUCTION:**

Acute appendicitis is the most common cause of acute surgical abdomen and appendectomy is one of the most common abdominal surgeries in clinical practice.<sup>1</sup> Complications encountered after appendectomy include wound-site infection, postoperative ileus, intra-abdominal abscess, leaks from the remnant stump, formation of fistulous communication between appendix and adjacent viscera or skin; and small bowel obstruction.<sup>2</sup>

Various types of fistulous communication reported are appendico-vesical, appendico-intestinal, appendico-uterine and appendico-cutaneous.<sup>3</sup> Post-appendectomy faecal fistula formation, though a rare complication, is associated with significant morbidity.<sup>3</sup>

**Case Presentation:**

A 49 year old, male presented to surgical emergency of our hospital with complaint of pain abdomen after open appendectomy. On examination the patient had tachycardia (pulse rate 104 bpm) with normal blood pressure.

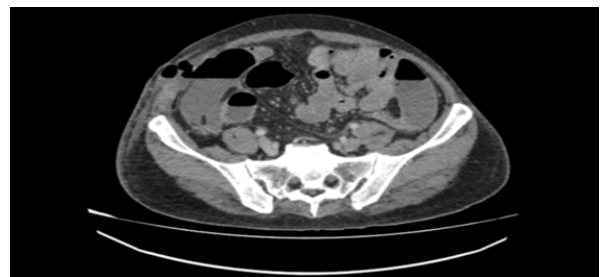
The patient had appendectomy at a private hospital 10 days before presentation. No documentation was available regarding the intraoperative finding or technical difficulties reported during the surgery.

The patient was reported to be doing well in the early postoperative period and was discharged on the second postoperative day. He presented to us eight days later with complaint of pain abdomen and signs of peritonitis in lower abdomen.

Ultrasonogram of the abdomen revealed some amount of free fluid in the pelvis and Morrison's pouch. Subsequently, a contrast enhanced computed tomography scan was done which showed extravasation of air from the caecum most likely from the area of the appendicular stump.

One portion of wound was opened up, which lead to a large amount of feculent discharge. The patient was managed conservatively with intravenous fluids, intravenous antibiotics and regular dressings during the initial period.

A stoma bag was applied to prevent excoriation of the surrounding skin. The patient was gradually shifted to oral nutrition with monitoring of the fistula output. He responded well to the conservative treatment and was discharged under stable condition.



**Figure 1:** CECT abdomen film showing leakage of air from the caecum



**Figure 2:** Clinical photograph showing stoma bag applied over abdominal wall



**Figure 3:** Clinical photograph showing completely healed fistula

**DISCUSSION:**

Post-appendectomy faecal fistulas occur mostly when there is severe peri-appendicitis involving the base of the appendix as

well as the adjoining caecal wall. Leakage from the appendiceal stump is incriminated as a major etiological factor in such patients.<sup>4</sup> Injuries to the caecum during appendectomy, although not frequently reported, are another important etiological factor. Other known etiological factors include neoplasia of appendix and caecum, infective bowel conditions, especially intestinal tuberculosis, actinomycosis and Crohn's disease, distal obstruction and foreign body.<sup>5</sup>

At early stage, a faecal fistula may be confused with wound infection. Faecal fistula usually presents with persistent feculent discharge from the wound which continues inspite of attempts of drainage and repeated dressing. Associated symptoms include fever, nausea and vomiting and symptoms and signs of paralytic ileus. Diagnosis is usually established on CT scan which shows extravasation of the oral contrast medium or air at the caecum. Fistulography is helpful in the late stages when the fistulous tract is well matured.

Primary treatment is resuscitation. The control of any septic foci should begin when the patient is sufficiently stable to undergo diagnostic and therapeutic intervention. In a stabilized patient, collections are preferentially drained percutaneously by an experienced interventional radiology team. Alternately, the collection can be drained through the fistula tract with a sump drain, with the tip of the drain placed near the enteric opening.<sup>6</sup> To protect the skin, an ostomy appliance may be attached to the skin, with a custom fit for the exterior opening of the fistula as was done in our patient.<sup>7</sup>

Most fecal fistulae respond to conservative treatment in absence of underlying pathology and distal obstruction. Other non- surgical management options for fecal fistula include vacuum-assisted closure and fistuloscopy with fibrin glue injection.<sup>8,9</sup>

Surgical management should be considered if fistula does not heal with 4-6 weeks of adequate conservative management. Fistula tract excision and segmental resection of involved bowel, with end-to-end anastomosis is recommended as a procedure of choice.<sup>10</sup>

## CONCLUSION:

The case is being reported to highlight the following facts:

- Fecal fistula, though uncommon, is an important complication after appendectomy and should be suspected in patients who had difficult appendectomy.
- Contrast enhanced computed tomography scan of the abdomen is the diagnostic investigation which can visualize the extravasation of contrast or air from the caecum.
- Most of the patients can be managed with conservative treatment which include adequate resuscitation, sepsis control, application of stoma bag at the wound site, etc.

## REFERENCES

1. Moga D, Maxim R, Popen[uiu A, Perişanu Ş, Sab[uiu V, Magdu H. Late Postappendectomy Faecal Fistula.
2. Çiftci F, Abdurrahman I, Tatar Z. Stump appendicitis: a clinical enigma. *Chirurgia*. 2015 Nov 1;110(6):562-4.
3. Nanni G, Bergamini C, Bertoncini M, Nanni G. Spontaneous appendicocutaneous fistula: case report and literature review. *Diseases of the Colon & Rectum*. 1981 Apr;24(3):187-90
4. Finlay DJ, Doherty GM: Acute abdominal pain and appendicitis. In: *Washington Manual of Surgery*. Washington University School of Medicine. Lippincott Williams & Wilkins; 2002; 265.
5. Watters DA, Walker MA, Abernethy BC. The appendix stump: should it be invaginated?. *Annals of the Royal College of Surgeons of England*. 1984 Mar;66(2):92.
6. D'Harcour JB, Boverie JH, Dondelinger RF. Percutaneous management of enterocutaneous fistulas. *AJR. American journal of roentgenology*. 1996 Jul;167(1):33-8.
7. Kaushal M, Carlson GL. Management of enterocutaneous fistulas. *Clinics in Colon and Rectal Surgery*. 2004 May;17(02):79-88.
8. Cro C, George KJ, Donnelly J, Irwin ST, Gardiner KR. Vacuum assisted closure system in the management of enterocutaneous fistulae. *Postgraduate medical journal*. 2002 Jun 1;78(920):364-5.

9. Eleftheriadis E, Kotzampassi K. Therapeutic fistuloscopy: an alternative approach in the management of postoperative fistulas. *Digestive Surgery*. 2002;19(3):230-6.
10. Deaver JB. Appendiceal fecal fistula. *Annals of Surgery*. 1924 Jul;80(1):56.