Interval appendectomy is the preferred treatment for perforated appendicitis. In the interim, patients often receive IV antibiotics and, if abscess are present, image guided percutaneous drainage. Although associated with fewer postoperative challenges, interval appendectomy can be complicated by extensive intra-abdominal adhesions requiring cecectomy, omentectomy, multiple incisional hernia repairs, and abscesses.

Methodology

An 81-year-old woman presented with a right groin mass following a recent diagnosis of perforated acute appendicitis, complicated by an abscess that was initially drained percutaneously. She recovered well, and the drain was removed. However, she developed a painless lateral bulge in her right groin, noticeable when bending over and exerting, in the area where the drain was placed. CT imaging revealed a fluid collection in the groin near the prior drain site, extending into the abdominal cavity.

Despite additional percutaneous drain placement, her symptoms persisted. She then presented for an interval appendectomy after multiple IR drain placements failed to resolve secondary abscesses, leading to the formation of a large 6.7 x 3.3 cm peri-cecal mucocele extending into the right inguinal canal as seen on CT imaging.

The patient underwent diagnostic laparoscopy. Upon entry of the abdomen, phlegmonous muscle and dense intra-abdominal adhesions in the pelvis and right lower quadrant were seen. Dissection of adhesions revealed entrapment of both the small and large bowel to the abscessss. The ileum was carefully dissected from the adhesions, however to free the transverse colon, partial omentectomy had to be performed. Additionally, the cecum was unable to be safely freed, requiring partial cecectomy via transection of the lateral wall. Appendectomy was performed using staples. Exploration of the abscess cavity revealed an incisional hernia at the site of the current pigtail drain with fat and omentum herniated inside. Tracking of the abscess cavity revealed extension into the right inguinal canal. ICG mode verified thorough debridement of the abscess cavity.



Figure 1A

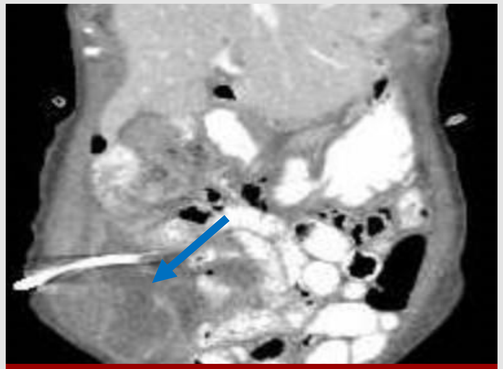


Figure 1B

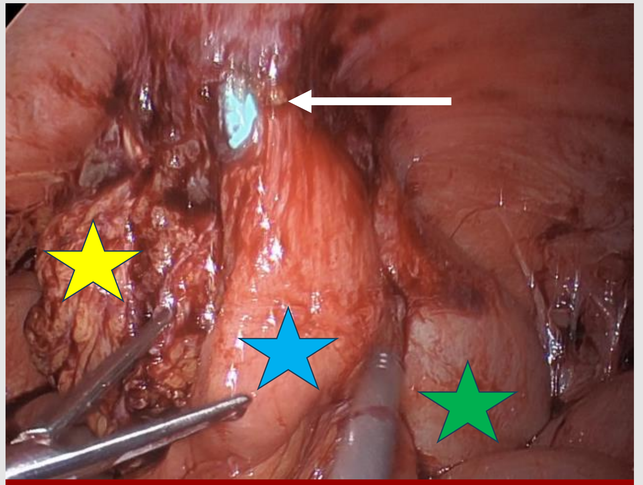


Figure 2

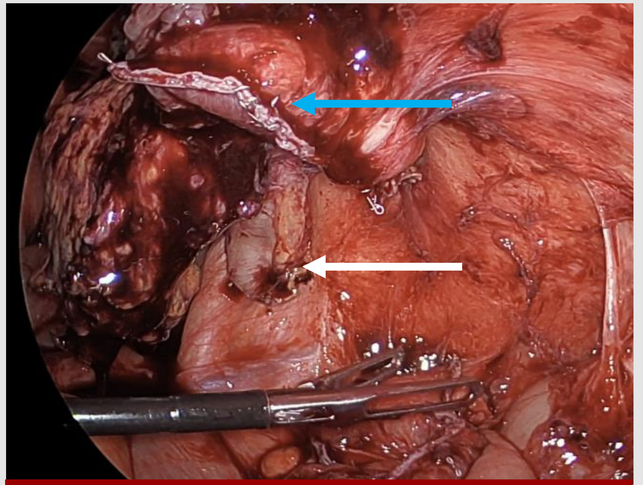


Figure 3

Figure 1: Right lower quadrant loculated fluid collection containing percutaneous pigtail catheter (red arrow) with additional loculated collection seen more laterally (blue arrow) in the subcutaneous tissues along the pigtail catheter tract. **Figure 2:** Omental (yellow star), ileal (blue star), cecal (green star), adhesion with pigtail in abscess (arrow). **Figure 3:** appendectomy (white arrow) and partial cecectomy (blue arrow).

Results/Conclusion

The patient tolerated the procedure well and was able to discharge form the hospital the next day. Patient evaluated outpatient, with no complaints.

While interval appendectomy typically carries fewer postoperative risks, complications such as adhesions, abscesses, and complex anatomy can significantly increase the difficulty of the procedure. This case highlights the need for individualized surgical approaches and the potential requirement for advanced techniques to manage such complications.