Case Report

Laparoscopic appendectomy for mucocele of the appendix: report of 8 cases

Muthukumaran Rangarajan, Chinnusamy Palanivelu,
Alfie Jose Kavalakat, Ramakrishnan Parthasarathi

GEM Hospital, 45-A Pankaja Mill Road, Ramnathapuram, Coimbatore 641 045

Mucocele of the appendix is an aseptic dilatation secondary to obstruction. Surgical excision is the treatment of choice in benign mucocele. The incidence of mucocele of the appendix in our center is 0.15%, of a total of 6000 appendectomies over 8 years. We operated on 9 cases; laparoscopic appendectomy was done in 8 of them. One patient had pseudomyxoma peritonei, so open surgery was done. Other organs were also examined as there is a possibility of concurrent tumors. As there is risk of malignancy of the appendix leading to port-site metastasis we used a non-permeable bag to remove the resected specimen. [Indian J Gastroenterol 2006;25:256-257]

Mucocele of the appendix (collection of mucus within the appendiceal lumen) is a rare lesion, found in only 0.2% to 0.3% of 43,000 appendectomies reviewed.1 The lesion is generally found by chance during surgery.2 Some regard this lesion as benign, a result of obstruction of the proximal lumen by fibrosis; others believe it to be a neoplasm of the appendix. It is often associated with pseudomyxoma peritonei. The neoplastic variety may be benign or malignant. Surgical resection (appendectomy) is the method of choice in the management of simple mucocele and for cystadenoma with an intact base.3 Several studies (mostly case reports) on laparoscopic resection of mucocele have been reported.4

Case Reports

We treated 9 patients (mean age 46 years; 6 women) with mucocele of the appendix in the last 8 years (1997-2005), of a total of 6000 patients who underwent laparoscopic appendectomy. Eight patients underwent laparoscopic resection and one patient underwent diagnostic laparoscopy followed by laparotomy as he had pseudomyxoma peritonei secondary to rupture of the mucocele. (This patient has not been included in the case series). Six patients presented with pain and in the other two patients, there was a palpable mass. Ultrasonogram was able to diagnose a cystic mass in the region of the appendix in 6 patients and CT scan revealed mucocele in 2 cases.

Veress needle technique was used for pneumoperitoneum. Patients were placed in the supine position, with a 30° Trendelenburg tilt. Diagnostic laparoscopy revealed a large bluish mucocele of the appendix, the thickness of which was larger than the ileum. We use a 30° (5 mm) telescope, combined with a three-chip digital camera, xenon light and medical monitor. We placed the camera port in the suprapubic region. The left-hand instrument was, in all cases, 10 mm in size, to accommodate a 10-mm bowel-holding grasper. Through this approach, the appendix can be visualized at any anatomical location. The umbilical port is the working port, used by the right hand of the surgeon. The mucocele was grasped with the left-hand bowel-holding grasper, mesoappendix was mobilized using Harmonic scalpel (Ethicon, USA), two vicryl endoloops were applied 3 mm apart, and the mucocele was cut and delivered using a non-permeable bag (Fig). A thorough peritoneal wash was given in all cases. In some cases, the specimen was removed as a whole by enlarging the 10-mm umbilical port. We did not drain the operated site in any patient. Liquid diet was started on the first postoperative day and soft diet on the second day. All patients were discharged on the second day.

There were no postoperative complications. There was no malignancy in any case. Five patients followed up for mean 2 years; none had pain and ultrasonogram was normal. The other cases were lost to follow up.

Discussion

The incidence of mucocele of the appendix in our center was 0.15%, which is consistent with the worldwide incidence. In a retrospective study of 135 patients, 55% were females.5 Recent reports show a male predominance (4:1), suggesting that the sex...
distribution is changing. In our study, there were more females than males (2:1).

According to the literature, symptomatic patients were more likely to have malignant disease. Other tumors associated with mucocele are those in the gastrointestinal tract, ovary, breast and kidney (33%). The most common association is colorectal cancer (11%-20%).

Surgery is the treatment of choice, and should be done early as tumor cannot be ruled out as the causative factor for the mucocele. Pre-operative diagnosis is important, to avoid unintended rupture and the development of pseudomyxoma peritonei during surgery. Laparoscopic resection has been used with good results. However, laparoscopic dissection, grasping of the appendix specimen, pneumoperitoneum, or transport of the specimen through the abdominal wall might contribute to peritoneal dissemination of a tumor, if present. These setbacks can be avoided by taking precautions like using bowel-holding graspers (non-traumatic) to handle the mucocele, and using a non-permeable bag to deliver the specimen out of the port.

In conclusion, laparoscopic resection of mucocele of the appendix is feasible in spite of the danger of malignancy, provided necessary precautions are taken.

References

Correspondence to: Dr. Rangarajan. Fax: (422) 232 0879. E-mail: rangy68@gmail.com
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Image

Avid 18F-FDG uptake in rectal hemorrhoid in a patient with metastatic medullary carcinoma of thyroid

A 65-year-old man with medullary carcinoma of the thyroid with hepatic metastasis was referred for disease evaluation after total thyroidectomy. He had highly raised serum calcitonin and carcinoembryonic antigen levels. 18F-FDG-PET, in addition to the uptake in the metastatic foci in the liver and neck, revealed a fair-sized focus of intense uptake in the posterior lower pelvis (Fig). Endoscopy revealed large inflamed hemorrhoids corresponding to the uptake.

Sandip Basu, Narendra Nair
Radiation Medicine Centre,
Bhabha Atomic Research Center, Tata Memorial Hospital, Mumbai 400 012
Correspondence to: Dr Basu, Radiation Medicine Centre, Tata Memorial Centre Annexe, Mumbai 400 012. E-mail: drsanb@yahoo.com