

Uncommon Presentation of Ceecal Mass

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Introduction

Basidiobolomycosis, a rare fungal infection caused by *Basidiobolus ranarum* found in several isolated places as decaying vegetables and soil, known to be widely spread in tropical areas, usually presenting as a gastrointestinal infection involving the small intestine, stomach, colon, as well as the liver. Among these organs, the colon is the most commonly involved organ. Gastrointestinal basidiobolomycosis is usually misdiagnosed with gastrointestinal cancer, Inflammatory Bowel Disease (IBD). Recent studies showed that Blastomycosis prevalence among humans is around 10% in developed countries compared to 50% to 60% in developing countries. Gastrointestinal Basidiobolomycosis serves as a mimicker to colon malignancy or chronic infections, together with the unfamiliarity and uncertainty among physicians this leads to delay in treatment and setting an accurate diagnosis.

Case Presentation

A 41-year-old gentleman referred from an outside facility care centre to our hospital as a case of caecal mass diagnosed via CT scan imaging with enlarged locoregional lymph nodes. Laparoscopy was done outside, and was

negative for malignancy. The patient presented with initial symptoms of intestinal obstruction including several episodes of acute exacerbation of chronic abdominal pain, with non-bloody diarrhoea, and recent weight loss in the prior three months. When CT scan was repeated in our emergency department, localised perforated caecal mass was shown picture of a phlegmon with numerous differential diagnoses including adenocarcinoma, inflammatory bowel disease, and diverticular disease Table 1 and 2.

Table 1: Vital signs

Heart rate	111 beats per minute
Blood pressure	108/59
Temperature	37.6
O2 saturation	99

Table 2: Laboratory results

White blood cell count	240000
Haemoglobin	120
Lactic acid	1.6
Creatinine	62
CRP	344

The patient underwent an urgent laparotomy with extended right hemicolectomy. Histology findings reported marked eosinophils with mixed inflammation together with granulomatous reaction, necrosis associated with broad fungal hyphal elements and fibropureulent exudate. In all examined sections (extended right colon, retroperitoneal tissue, terminal ileum) no evidence of malignancy in these tissues were noticed. The surgery went uneventful.

On day 8- postoperatively, CT scan was repeated because the patient complained of chills, and rigors and fever were documented to be 39 degrees Celsius. CT findings showed multifocal small fluid collections adjacent to anastomosis site inferiorly containing air foci, and two small hyperdense collections seen at the right lower quadrant. A suppositional diagnosis of Basidiobolomycosis was made, infectious consultation was ordered and treatment with Ictanzol was initiated. This is the fourth case of Basidiobolomycosis in our tertiary care centre.



Figure1: Initial CT-scan showing phlegmon and liver mass.



Figure2: CT-scan showing no anastomotic leak.

Discussion

The first case of Basidiobolomycosis was reported in 1956, presenting as a subcutaneous infection. During the past 10

years, 71 cases of Gastrointestinal Basidiobolomycosis have been reported. Gastrointestinal Basidiobolomycosis is considered a rare fungal infection caused by *Basidiobolus ranarum*, as a result it's usually misdiagnosed and considered to be as a major diagnostic difficulty. The exact mechanism behind route of infection is yet not well established or known; however several cases showed that ingestion of contaminated food, decaying vegetables thought to be the source. Most cases of gastrointestinal Basidiobolomycosis are commonly found and reported in USA, Africa, and Saudi Arabia.

Risk factors for Basidiobolomycosis include transplant individuals on prolonged use of steroids, uncontrolled diabetes however Basidiobolomycosis has not been found to be associated with gender, or age.

Gastrointestinal Basidiobolomycosis present in a vague, uncertain, non diagnostic symptoms including abdominal pain, fever, change in bowel habits (constipation, diarrhoea) and weight loss. On imaging the abdominal mass is usually misdiagnosed as malignancy due to the great mimicking similarity. Therefore, high clinical suspicion is needed to achieve a favourable outcome together with sufficient histological tissues for culture and most important a multidisciplinary team approach should be followed. Initial primary diagnostic tests include CT-scan, and ultrasound. Culture is considered as the gold standard for diagnosing gastrointestinal Basidiobolomycosis, however due to the uncertainty of the diagnosis mixed with malignancy, bowel obstruction, inflammatory bowel disease, culture is usually missed. There are several treatment modalities including a hybrid mixture of medical and surgical therapy, amphotericin, bowel resection, respectively.

Conclusion

Since Gastrointestinal Basidiobolomycosis tends to occur in immunocompetent individuals this serves as a major contributor for delay in establishing the diagnosis. Diagnosing and treating such rare cases serve as a great challenge among physicians therefore a multidisciplinary team approach should be followed since complications serve as a great contributor for mortality among diagnosed cases.

Basidiobolomycosis a unicellular parasitic infection, usually treated by metronidazole as a primary first line drug therapy.

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