



## Granulomatous Colitis with Foreign Body Mimicking a Tumor Process: Case Report

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### Abstract

Ingestion of the foreign body is a frequent situation in Gastroenterology; however colonic localization remains very rare. The objective of this work was to report the exceptional case of a colonic foreign body revealed by sub-occlusive syndromes. This is a 65-year-old patient with no significant pathological history, who presented with Koenig's syndrome progressing against a background of deterioration of the general state with a periumbilical impasto on examination. The abdominal CT objectified a thickening of the transverse colon with foreign body at the level of the peritoneal fat making suspect a colonic perforation by clogged foreign body. Colonoscopy showed an impassable stenosis of the transverse colon, the anatomopathological study of colonic biopsies was in favor of granulomatous colitis, the patient therefore underwent colonic resection with end-to-end anastomosis with good postoperative progress.

An anatomopathological study of the operative resection part showed that it was a granulomatous colitis with a foreign body. In the absence of anamnestic orientation, the colonic localization of a foreign body poses a real problem of differential diagnosis with tumor, infectious and inflammatory pathologies. It can be revealed by complications such as occlusion or perforation where imaging plays a key role. Endoscopy always plays an essential diagnostic and therapeutic role in the care of ingested foreign bodies, thus limiting surgical morbidity, although this remains sometimes unavoidable, and the anatomopathological study highlights a granuloma with a constituted foreign body. Granulomatous colitis with a foreign body with clogged colonic perforation is a rarely reported situation and must henceforth be considered before any colonic symptomatology even in the absence of the anamnestic elements in favor such as our case in order to avoid the patient from the side effects and complications of heavy treatments.

**Keywords:** Granulomatous colitis; Foreign body; Tumor process; Endoscopy; Surgery

### Introduction

Ingestion of the foreign body is a situation that gastroenterologists are regularly confronted with the symptomatic range is wide. Colic localizations with a blocked perforation are rare, although reported. Imaging plays a key role in the diagnosis. Endoscopy plays an important therapeutic role. The use of surgery is increasingly restricted, reserved for rare complications [1]. We report a case of an elderly subject with repetitive subocclusive syndrome with a periumbilical impasto evolving in a context of deterioration of the general state for 3 months, the obsession was the neoplastic pathology, but the explorations have shown that 'It was a granulomatous colitis with a foreign body with colonic perforation blocked.

### Case Presentation

AM aged 65, is admitted to the gastroenterology department of the Mohammed VI University Hospital Center in Marrakech for Koenig syndrome evolving for 3 months in a context of deterioration in general condition with weight loss estimated at 8 kg/3 months aggravated by the appearance of subocclusive syndromes. No notion of chronic diarrhea, or of recent tuberculosis contagion neither in the entourage, nor of neoplasia or chronic inflammatory diseases of the intestine (IBD) in the family. The clinical examination found an apyretic patient, stable on the hemodynamic and respiratory plan, having a BMI (Body Mass Index) at 19 kg/m<sup>2</sup>, with a flexible abdomen, with umbilical impasto, without detectable peritoneal effusion. A biological inflammatory syndrome made of a microcytic hypochromic anemia at 10.3 g/dl and an accelerated sedimentation rate at 58 mm at the first hour

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Received Date: 28 Jan 2020

Accepted Date: 19 Feb 2020

Published Date: 24 Feb 2020

#### Citation:

Atmani JE, Ismail Y, Kousse ML, Elfarouki A, Errami AA, Samlani Z, et al. Granulomatous Colitis with Foreign Body Mimicking a Tumor Process: Case Report. *Ann Clin Case Rep.* 2020; 5: 1804.

ISSN: 2474-1655

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**Figure 1:** Thickening aspect of the transverse colon with hyperdense foreign body in the peritoneal fat on abdominal CT.



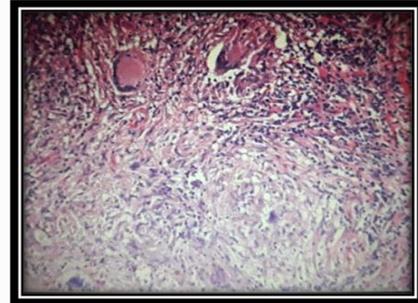
**Figure 2:** Thickening of the gastric handles on contact with extension of the infiltration towards the anterior abdominal wall and collections in cubicles of the right muscle measuring 46 mm × 96 mm. Discrete infiltration of the fat around the skin.



**Figure 3:** Impassable colonic stenosis with appearance of convergent folds at colonoscopy.

is found, a CRP rose to 95. No biological malabsorption syndrome is noted. The LDH (Lactate Dehydrogenase) level was normal at 90 IU/L. The HIV serology was negative. The abdomen without preparation did not show hydroaeric levels. An abdominal ultrasound showed thickening of the transverse colon associated with significant infiltration of peritoneal fat with satellite lymphadenopathy. The abdominal CT revealed a circumferential and regular thickening of the median part of the transverse colon measuring 14 mm thick and extended over approximately 81 mm, enhanced by the contrast and is associated with significant infiltration of the surrounding peritoneal fat with individualization of a foreign body of high density elongated by 32 mm, absence of visible pneumoperitoneum (Figure 1).

It is also associated with a thickening of the gastric handles on contact with extension of the infiltration towards the anterior abdominal wall and collections in cubicles of the right muscle measuring 46 mm × 96 mm with discrete infiltration of the fat cutaneous shell opposite (Figure 2), and peritoneal and mesenteric fat nodes of infra centimeter size, with a left renal cyst of 44 mm in simple diameter with no other visible anomalies. This thickening of the transverse colon with a foreign body at the level of the peritoneal



**Figure 4:** Granulomatous inflammatory reaction to the anatomopathological study of colonic biopsies.



**Figure 5:** Foreign body found after surgery.

fat raising suspicion of colonic perforation by a clogged foreign body. The patient had a colonoscopy which objectified in the transverse colon after the left colonic angle a thickening of the mucosa with an appearance of large folds converging towards the colonic lumen obstructing it and making it impassable with the colonoscope multiple biopsies were made, the rest of the rectocolic mucosa was without abnormalities (Figure 3). The histological study of the biopsies showed granulomatous transmural colitis with non-necrotizing epitheliogiganto-cellular follicles without sign of malignancy (Figure 4).

The tuberculosis assessment was negative. The patient was put on broad spectrum antibiotic therapy and then he underwent colonic resection with an end-to-end colonic anastomosis with drainage of the collections. At the opening of the operative resection part, we note the presence at the level of the transverse colon of a stenosing whitish lesion of hard consistency at the center of which a firm foreign body, with sharp edges, reshaped, the nature of which has could be determined probably a fishbone (Figure 5). The anatomopathological study of the operating room was in favor of granulomatous transmural colitis with foreign body with non-necrotizing epitheliogiganto-cellular follicles without sign of malignancy. The post-operative suites were simple. The patient is asymptomatic, has gained weight and has a negative inflammatory balance, with a 2-year follow-up.

## Discussion

The Foreign Bodies (FB) ingested are numerous but poorly listed. Children, prisoners, psychotic or mentally retarded patients and elderly and edentulous patients constitute the populations at risk [1]. Passage through the digestive tract is more frequent [2,3]. 80% to 90% of foreign bodies ingested pass spontaneously. 10% to 20% require non-surgical extraction maneuvers when they are accessible

endoscopically and less than 1% require surgery, particularly following complications (hemorrhage, occlusion and perforation) [1,4]. Our patient is an elderly subject with no notable pathological history or particular field without the notion of ingestion of a foreign body, presenting a Koenig syndrome evolving in a context of deterioration of the general state. The diagnosis is usually easy and is based on the interrogation [5], although not contributory in the case of our patient making the observation exceptional. Retro-sternal pain, odynophagia, dysphagia, hyper-sialorrhea and vomiting may occur at the time of the incident which could also be complicated by bleeding, perforation with infectious consequences (mediastinitis, cellulitis and para-esophageal abscess) and fistulas of the digestive tract [1,6]. Our patient developed a sub-occlusive syndrome on an inflammatory process formed around the foreign body at the level of the median part of the transverse colon.

No radiological assessment is necessary for non-bone food impactions without complications. The ESGE (European Society of Gastrointestinal Endoscopy) recommends a simple X-ray to locate the FB, determine its size, appearance and number if the object is suspected to be radiopaque or whose nature is unknown. Computed tomography is indicated in case of suspected complications that may require surgical treatment [7,8]. In the illustrated case, the radiography of the abdomen without preparation was normal and the abdominal computed tomography showed a thickening of the transverse colon with foreign body at the level of the peritoneal fat making suspect a colonic perforation by clogged foreign body. The exact nature of the foreign body remains unidentified; the anamnestic data were not contributory. The search for an underlying disease during a feeding impaction incident is essential and includes a biopsy of the blocking seat [8]. The operative part of the colon resection that our patient underwent, was in favor of granulomatous transmural colitis with foreign body while eliminating tuberculosis, Crohn's disease and neoplasia. Foreign body granuloma is a chronic lesion predominantly made up of cells of the monocyte and macrophage lineage. The phagocytosis function is usually well developed there. It is associated in variable numbers with other inflammatory cells including lymphocytes, plasma cells, antigen presenting cells as well as neutrophils and eosinophils [9]. In our case, the inflammatory

infiltrate consisted mainly of lymphocytes, plasma cells, histiocytes and some polymorphonuclear cells. The cellular profile of this inflammatory lesion has most likely been altered by chronic course.

## Conclusion

The ingestion of foreign bodies is a situation frequently encountered in gastroenterology. Colonic localization is rarely reported. However, such a diagnosis must henceforth be considered after having ruled out infectious, inflammatory and tumor etiologies, even in the absence of an evocative context, sparing the patient from multiple iatrogenic damages.

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