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Case report

Intestinal Obstruction Induced by Peach Stone in Stenosis of Sigmoid Colon by adenocarcinoma: A case report and literature review

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HIGHLIGHTS

- Intestinal obstructions are rare conditions caused by the ingestion of foreign bodies.
- Intestinal obstruction is the second among the most frequent acute abdominal conditions.
- There are only few cases of Intestinal Obstruction Induced by Peach Stone in Stenosis by Adenocarcinoma reported in the world literature.
- Colonoscopy should be performed every 10 years from the age of 50.

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ABSTRACT

Introduction: Intestinal obstruction is the second among the most frequent acute abdominal conditions of the non-traumatic surgical pathologies. It is Found in 20% of patients admitted to the emergency care services with acute abdominal pain. It often results in high morbidity and mortality.
Presentation of case: We report a case of a foreign body resulting in a colon obstruction, concomitant with the diagnosis of a sigmoid cancer in a 47-year-old female.
Discussion: There are only a few cases of Intestinal Obstruction Induced by Peach Stone in Stenosis of Sigmoid Colon by Adenocarcinoma reported in the world literature. Due to late diagnosis It has a high mortality rate. Vomiting and emesis, abdominal distention, dysphagia, colicky abdominal pain, failure to pass flatus and anorexia are clinical findings. The immediate treatment is importance for patient survival.
Conclusion: Intestinal obstructions and perforations are rare conditions caused by the ingestion of foreign bodies. These conditions must be taken into consideration especially owing to differing diagnoses and previous pathologies concomitant with the ingestion of objects such as those described in the foregoing adenocarcinoma case.

1. Introduction

Colonrectal cancer is responsible for over 600,000 deaths and 1,234,000 new cases every year in the world. It is the third most prevalent type of cancer in both men and women [14]. Age over 50, a family history of colon rectal cancer, obesity, and sedentariness increase the risk of developing the disease. At the time of diagnosis 20% of patients already present extended metastases mainly due to the silent characteristic of its evolution, provoking varied and non-specific symptoms. An early diagnosis increases life quality and expectation for the patient.

Ingestion of foreign bodies may be common in children, alcoholics, psychiatric patients and the senile. Small objects with smooth edges generally do not present significant problems and pass through the intestinal tract with no difficulty, but they may, nevertheless, cause obstruction [3,5,7]. Obstructions may occur anywhere in the alimentary canal, more often in places anatomically or pathologically narrow and with sharper bends. The terminal ileum is the most affected area as it is the narrowest part of the small intestine and has a relatively weak peristalsis. The cases where there is perforation are usually more common in the

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ileocecal and rectum sigmoid areas.

The diagnosis through clinical evaluation and radiologic imaging is only done in 10% of cases. The present case is an example of a foreign body resulting in a colon obstruction, concomitant with the diagnosis and the resection of a sigmoid cancer [1,2,6,8,9,10].

2. Case report

Approximately one year ago, a 47-year-old female patient started feeling colicky abdominal pain associated with haematochezia and constipation. She had been admitted to hospital several times without any solution for her condition. That day, she was admitted to the Júlia Kubitschek Hospital complaining of acute abdominal pains, having been constipated for four days and cessation of flatus and bowel movements. She reported an accidental ingestion of a peach stone nine days previously. At the clinical examination she presented a good general condition, hydrated, afebrile, and anicteric. She was eupnoeic, with a cardiac frequency of 72bpm, distended abdomen and non-tympanic percussion. A rectal touch showed an empty rectal ampulla with neither bleeding nor a palpable mass. Low air-fluid levels and a discreet colon dilatation were seen through abdominal radiography. On the second day of hospitalization, she underwent an improvement in the abdominal pain through the use of analgesics, she could tolerated diet and eliminated flatus. There was no elimination of faeces. Diuresis was satisfactory and preserved, and she remained afebrile, conscious, hydrated and anicteric. Her cardiac frequency was 80 bpm, and there were no signs of peritoneal irritation. Deep palpation caused discomfort. New radiography of the abdomen were performed showing the presence of faeces in both the ascending and descending colon, air in the rectal ampulla, and absence of air-fluid levels. Hb = 10.9 g/dL; Leukocytes = 6300/mm^3, segmented = 66%.

After two days, the clinical condition of the patient worsened, as she presented abdominal distension and intense abdominal pain unresponsive to analgesics. An abdominal CT was requested and performed at the John XXIII Emergency Hospital, which showed the caecum full of faeces and a diffuse distension of the entire colon up to the sigmoid, where it was possible to see an image, which suggested a foreign body (a peach stone?).

An exploratory laparotomy was performed and found a distended and blackened colon, from the caecum to part of the sigmoid colon, where a tumorous mass could be felt. The whole colon was removed, up to 10cm below the obstruction and Hartmann's technique was performed. A peach stone was found impacted in tumorous stenosis. The anatomical-pathological examination showed adenocarcinoma of the sigmoid colon (see Figs. 1–5).

3. Discussion

Intestinal obstruction represents a condition whose aetiology is

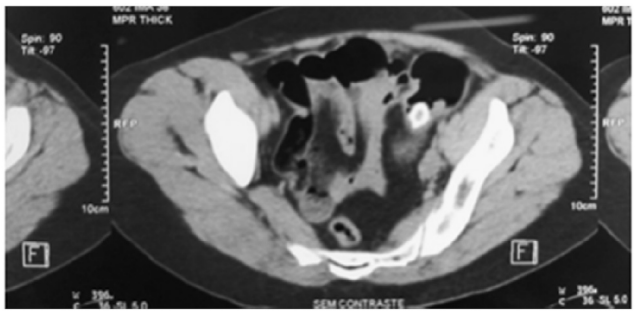

Fig. 1. Tomography of the abdomen and pelvis.

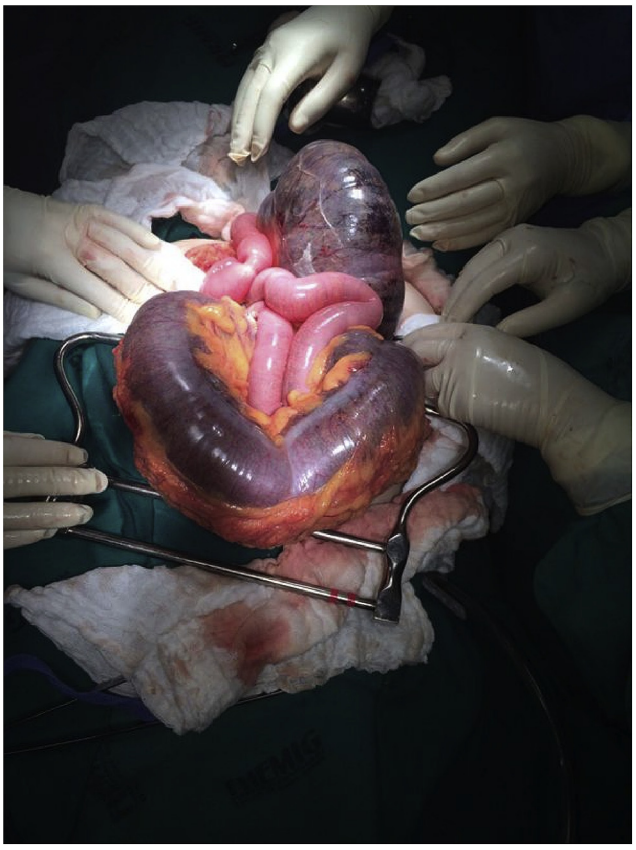

Fig. 2. Appearance of the transverse colon (arrow) and caecum at laparotomy.

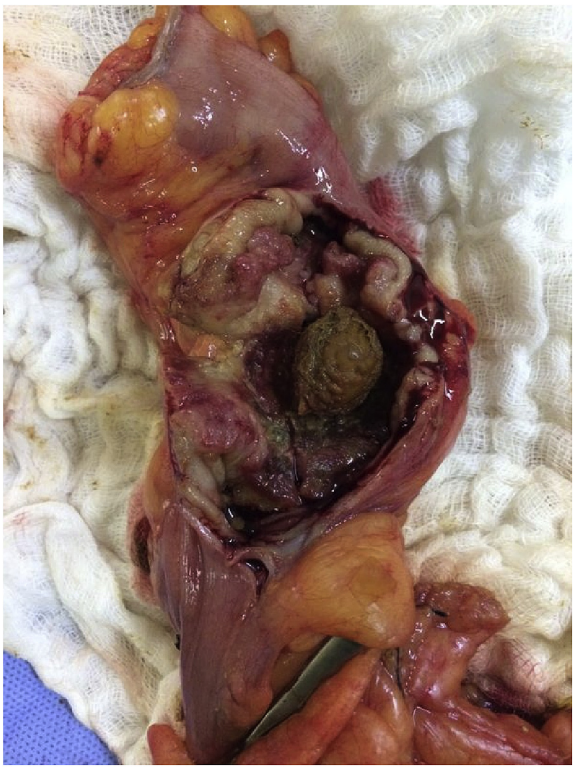

Fig. 3. Image of the peach stone (arrow) in stenosis of sigmoid colon.

Fig. 4. Image of the peach stone (arrow) removed from the tumorous stenosis of the sigmoid colon.

Fig. 5. Appearance of the dried colon. The tweezers show the locale of the obstruction.

extremely variable and it is related to a range of factors such as eating habits, genetics, family history, post-operative adherences, hernias, and tumours. Of the non-traumatic surgical pathologies, it is the second among the most frequent acute abdominal conditions seen in the emergency care services. As it presents diagnostic and therapeutic particularities, it often results in high morbidity and mortality. This is due to late diagnosis, inadequate pre-operative preparation, incorrect treatment, and delay in seeking emergency medical assistance by the patient.

The most recurrent symptoms and physical examination findings of intestinal obstructions are colicky abdominal pains with the location varying according to the level of the obstruction, emesis and nausea, abdominal distention, dysphagia, failure to pass flatus and tympany to percussion. In rare cases, gastrointestinal haemorrhage can occur [5,11]. Patients with a sigmoid colon tumour generally present intestinal constipation. Diffuse abdominal pain associated with haematochezia may be related to innumerable pathologies besides tumours, such as haemorrhoids, small fissures in the rectum or anus and diverticulosis, thus making an early diagnosis difficult.

Approximately 80–90% of foreign bodies will go through the alimentary canal and less than 1% will perforate the stomach. The narrowing of the intestine due to neoplasia can inhibit the passage of food and phytobezoars leading to symptoms that can be seen as evidence for the discovery of an asymptomatic colon-rectal cancer, which might, otherwise, escape detection for an indefinite period [4].

Lesions at an initial stage show few symptoms and can be treated curatively, avoiding more extensive procedures and having higher rates of cure. Colonoscopy should be performed every 10 years from the age of 50 aiming at an early diagnosis.

4. Conclusion

Intestinal obstructions and perforations are rare conditions caused by the ingestion of foreign bodies. These conditions must be taken into consideration especially owing to differing diagnoses and previous pathologies concomitant with the ingestion of objects such as those described in the foregoing adenocarcinoma case.

Ethical approval

Not applicable.

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Author contribution

Argos Soares de Matos Filho – writing, conception and study design, data analysis and final approval of the version to be submitted.

Isabela de Alencar e Lombardi – writing, data collections, analysis and interpretation of data.

Clarissa Santos Neto ¯ picture art, writing and the conception and study design.

Andreia Souto da Motta ¯ picture art, writing and the conception and study design.

Ronielly Araújo Rocha ¯ writing and analysis and interpretation of data.

Conflicts of interest

None declared. The authors have no financial, consultative, institutional, and other relationships that might lead to bias or conflict of interest.

Guarantor

Argos Matos.
Isabela Lombardi.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images.

References

[1] K. Atila, S. Güler, S. Bora, H. Gülay, An unusual cause of small bowel perforation: apricot pit, Ulus. Travma Acil. Cerrahi Derg. 17 (3) (2011) 286–288.
[2] J.H. Chen, K.Y. Chen, W.K. Chang, Intestinal obstruction induced by phytobezoars, Can. Med. Assoc. J. 182 (17) (2010) E797.
[3] D.H. McGregor, X. Liu, O. Ulusarac, K.D. Ponnuru, S.L. Schnepp, Colonic perforation resulting from ingested chicken bone revealing previously undiagnosed colonic adenocarcinoma: report of a case and review of literature, World J. Surg. Oncol. 9 (2011) 24–27.
[4] Y.Z. Wang, P. Greiffenstein, Ingestion of a foreign body unmasks an

asymptomatic small bowel carcinoid tumor, Clin. Pract. 2 (1) (2012) 2–4.
[5] R.D.P. Silva, R. Saad-Hossne, R.A. Ferraz, F.V. Teixeira, Fitobezoar em íleo terminal: uma causa rara de obstrução intestinal, Arq. Bras. Cir. Dig. 24 (4) (2011) 342–343.
[6] U.K. Fetzner, I.C. Oana, P. Büschel, R. Kasch, H. Alakus, S.P. Moenig, T. Herbold, D.L. Stippel, J. Scheele, Phytobezoar: impact of differential diagnosis and difficulties in technical diagnostics, Dig. Surg. 27 (4) (2010) 339. Comment on: J.W. Park, H.D. Chae, Phytobezoar of the Stomach. Dig Surg 26 (2009) 451–452.
[7] M.A.C.A. Henry, M.M. Lerco, W.K. Oliveira, L.T. Crippa, P.A.Z. Monteiro, I.A.S. Lombardi, G.D. Rodrigues, Obstrução intestinal no idoso, Arq. Bras. Cir. Dig. 20 (4) (2007) 225–229.
[8] A.M.A.A. Mader, A. Almeida, B.E.G. Falcone, P.G.K. Debs, S. Gonçalves, Adenocarcinoma de íleo terminal como complicação de Doença de Crohn, Rev. Bras. Coloproct. 23 (3) (2003) 196–199.
[9] C.R. Amorim, D.M. Faria, D. Castro Filho, R.M. Grande, V.C.T. Souza, Fitobezoar associado à endometriose intestinal: uma rara causa de obstrução intestinal, Arq. Bras. Cir. Dig. 29 (4) (2009) 501–504.
[10] M.A.N. Vidal, Obstrução intestinal: causas e condutas, Rev. Bras. Coloproct. 25 (2005) 332–338.
[11] R.A. Agha, A.J. Fowler, A. Saetta, I. Barai, S. Rajmohan, D.P. Orgill, For the SCARE Group, The SCARE Statement: consensus-based surgical case report guidelines, Int. J. Surg. 34 (2016) 180–186.