# Revista Española de Enfermedades Digestivas The spanish journal of gastroenterology

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DOI: 10.17235/reed.2017.4916/2017 Link: <u>PubMed (Epub ahead of print)</u>

Please cite this article as: Soto Sánchez Ana, Sánchez González Juan Manuel , Gambra Michel Luisa. Bowel obstruction secondary to intraluminal migration of the abdominal wall mesh . Rev Esp Enferm Dig 2017. doi: 10.17235/reed.2017.4916/2017.



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#### CE 4916

### Bowel obstruction secondary to intraluminal migration of the abdominal wall mesh

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Palabras clave: Obstruction. Intraluminal mesh. Migration mesh.

Dear Editor,

Eventration is an important public health problem due to its high incidence of around 12-15% in all laparotomies performed. The repair of an eventration has a 5-15% risk of complications (1). In recent years, the repair with prosthetic material has resulted in additional complications.

#### **Case report**

We present a case of a 63 year old male who underwent a Hartmann's procedure for an acute perforated sigmoid diverticulitis in 2004 with reconstruction of colonic transit in 2005 and ventral eventration with an intraperitoneal Dual Mesh repair in 2007. One year later, he came back to the emergency room with a small bowel obstruction. The CT scan showed a small bowel dilation with an abrupt change of caliber at the ileum due to an intraluminal foreign body. Emergency surgery was then performed where an ileon loop with prosthetic material (mesh) in the lumen of the bowel that was totally phagocytosed was found, as well as a secondary bowel dilation. Resection of the affected section and an anastomosis was then performed (Fig. 1). The wall defect was repaired with Permacol mesh. The postoperative period was uneventful and the patient was discharged 7 days after the surgery. To date, the patient has no recurrence of eventration during follow up.

#### Discussion

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There are only a few cases in the literature that describe a bowel obstruction due to intraluminal mesh migration. The exact mechanism of intraluminal mesh migration is unknown, although, Yolen et al. have proposed an interesting theory. They propose that intra-abdominal foreign bodies migrate to the bowel by initiation of an inflammatory reaction. The foreign body is then encapsulated by the omentum and together with the inflammatory reaction, it creates an opening into a hollow organ assisted by the peristaltic movement of the bowel (4). The treatment is surgical and in this case, resection of the affected bowel section was required.

## References

1. Cherla D, Hope W, Liang M.K. Recurrence and Mesh-related complications after incisional hernia repair. JAMA 2017;317(5):536-7. DOI: 10.1001/jama.2016.20112

Gonzalez R, Rodeheaver GT, Moody DL, et al. Resistance to adhesion formation: a comparative study of treated and untreated mesh products placed in the abdominal cavity. Hernia 2004;8:213-9.3. DOI: 10.1007/s10029-004-0213-x

3. Steinhagen E, Khaitov S, Steinhagen RM. Intraluminal migration of mesh following incisional hernia repair. Hernia 2010;14:659-62.4. DOI: 10.1007/s10029-010-0708-6

4. Majeski J. Migration of wire mesh into the intestinal lumen causing an intestinal obstruction 30 years after repair of a ventral hernia. South Med J 1998;91:496-8. DOI: 10.1097/00007611-199805000-00020



Fig. 1.