

## Accepted Article

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Antonio José Fernández-López, Francisco Miguel González Valverde, Marcelino Méndez Martínez

DOI: [10.17235/reed.2016.4215/2016](https://doi.org/10.17235/reed.2016.4215/2016)

Link: [PDF](#)

Please cite this article as: Fernández-López Antonio José, González Valverde Francisco Miguel, Méndez Martínez Marcelino. Management of non-surgical pneumoperitoneum. Rev Esp Enferm Dig 2016. doi: 10.17235/reed.2016.4215/2016.



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**CE 4215 inglés**

## **Management of non-surgical pneumoperitoneum**

Antonio-José Fernández-López, Francisco Miguel González-Valverde and Marcelino Méndez-Martínez

Department of General Surgery. Hospital General Universitario Reina Sofía de Murcia.  
Murcia, Spain

**Key words:** Pneumoperitoneum. Percutaneous endoscopic gastrostomy (PEG).  
Gastrostomy.

**Correspondence:** Antonio José Fernández López

e-mail: [fenandezlopezaj@gmail.com](mailto:fenandezlopezaj@gmail.com)

Dear Editor,

Percutaneous endoscopic gastrostomy (PEG) is a safe procedure, although complications have been described. The rate of pneumoperitoneum after PEG oscillates between 0 and 1.2% (1). When related to an extravasation of insufflated air, the use of carbon dioxide for insufflation would reduce this complication given its rapid absorption.

### **Case report**

An 85-year-old male not eligible for oral feeding, with anticoagulation for cardiac arrhythmia and on proton-pump inhibitors (PPIs), presented, 6 hours after a PEG procedure to the gastric antrum, dyspnea and abdominal distension with no peritoneal irritation signs. Chest-abdominal X-rays revealed a giant pneumoperitoneum (Fig. 1A).

Contrast computerized tomography (CT) revealed a huge pneumoperitoneum compressing the diaphragm and abdominal viscera with no contrast leakage or additional findings. Given the absence of abdominal manifestations, a percutaneous air drainage was performed using a 16G IV catheter (Abbocath-T®) (Fig. 1B). The plastic sleeve was kept in place, and manual abdominal compression maneuvers were carried out. Air removal reduced the abdominal circumference, and the patient remained asymptomatic. The catheter was in place for 2 hours, and was withdrawn after X-rays confirmed the resolved pneumoperitoneum. The patient was discharged from hospital after 4 days.

Key risk factors for PEG-related complications include advanced age, comorbidities, malnutrition, and PPI use (2). Our patient had all of them.

In the presence of pneumoperitoneum after PEG in an asymptomatic patient who is hemodynamically stable with no peritoneal irritation signs, as in our case, non-surgical management should be initially considered (3), with urgent surgery being indicated for individuals with impaired general status or peritoneal irritation signs.

Abdominal decompression by percutaneous puncture is a simple, safe, effective procedure that reduces surgery-associated morbidity and mortality, rapidly resolves pneumoperitoneum, and prevents compartmental syndrome (3).

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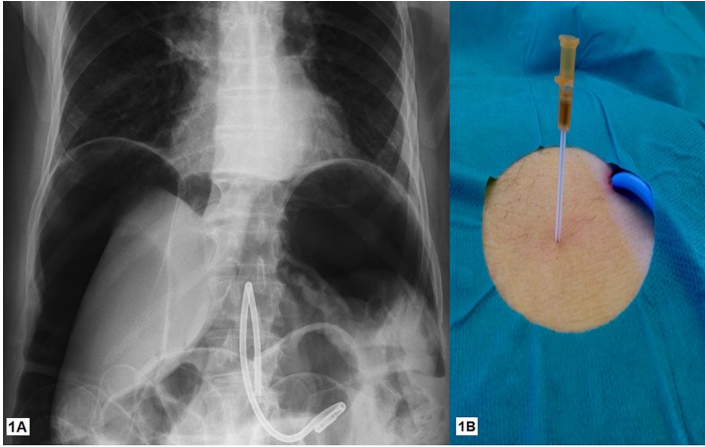


Fig. 1. A. Chest-abdominal x-rays showing a giant pneumoperitoneum. B. Percutaneous drainage of the pneumoperitoneum on the right flank using a 16G IV catheter.