Fungal colonization of intragastric balloons

Intragastric balloon therapy is used for weight reduction as a short-term intervention in obese patients. The procedure is usually well tolerated, however, some complications including intolerance, vomiting, gastroesophageal reflux, gastric erosions and esophagitis, gastric ulcers, and spontaneous deflation of the balloon have been observed. In addition, gastric perforation, dilatation, and small-intestinal obstructions are occasionally reported [1,2]. Different types of intragastric balloons may be used for weight reduction [3]. Herein, we present three asymptomatic patients with intragastric balloons infected by Candida albicans yeast colonies.

In all three patients, a Heliosphere BAG intragastric air balloon (Helioscopie, Vienne, France) was inserted under propofol sedation for weight reduction. The balloons were removed after 6 months. We used a Heliosphere Newtech extraction kit (Helioscopie) to retrieve the balloon. The kit consists of a needle catheter to deflate and aspirate the balloon, and a foreign body grasper to remove the balloon gently.

The first patient was a 35-year-old woman, 126 kg in weight and with body mass index (BMI) 45.2 kg/m². During retrieval of the balloon, endoscopic findings were unremarkable, but the surface of the balloon was covered with multiple gray-white and brownish-black plaques (Fig. 1). The second patient was a 45-year-old man. His weight was 127 kg and BMI was 43.9 kg/m². After 6 months, we observed, while retrieving the balloon, that it was deflated and covered in brownish-black plaques (Fig. 2 and Fig. 3). The third patient was a 45-year-old woman, 130 kg in weight and BMI 48.3 kg/m². Upon removal, we observed multiple yellowish-green plaques on the surface of the balloon (Fig. 4). The patients were all asymptomatic. There were no remarkable findings in the gastric mucosa of the latter two patients. Microbiological examination of these plaques revealed Candida albicans colonization (Fig. 5 and Fig. 6).

Fungal and bacterial colonization can occur on the surface of intragastric balloons. Various predisposing factors such as gastric stasis, antiacid drugs, and smoking may play a role in opportunistic infections in patients with intragastric balloons [4]. Spontaneous deflation of the balloon may be a risk factor as in the second patient discussed above. This should be taken
into consideration, especially in immunosuppressed patients, and these patients should be monitored. If any asymptomatic balloon infection occurs, the patient should be treated, especially those with damaged gastrointestinal system mucosa.

Endoscopy_UCTN_Code_CPL_1AH_2AK

Competing interests: None

References

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DOI http://dx.doi.org/10.1055/s-0034-1390838
Endoscopy 2014; 46: E642 – E643
© Georg Thieme Verlag KG Stuttgart · New York
ISSN 0013-726X

Corresponding author
Şahin Çoban, MD
Department of Gastroenterology
Diskapi Yıldırım Beyazıt Education and Research Hospital, Ankara, Turkey
Fax: +90-312-3186690
scoban72@yahoo.com

Şimşek Zahide et al. Fungal colonization of intragastric balloons... Endoscopy 2014; 46: E642 – E643