# Pulmonary aspiration of gastric contents during the extraction of intragastric ballon

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## INTRODUTION

Pulmonary aspiration of gastric contents is a rare complication with devastating consequences (1). Its incidence in the context of upper endoscopy for extraction of intragastric balloon is unknown (3). The determination of the fasting period and control of anesthetic depth are important elements to minimize the risk of pulmonary aspiration (1). The ASA has released guidelines for preoperative fasting that take into account the amount and type of food ingested (2). (Table 1)

**Table 1 – Fasting Recommendations to Reduce the Risk of Pulmonary Aspiration**

| Ingested Material | Minimum Fasting Period (hours) |
|---|---|
| Clear liquids * | 2 |
| Breast milk | 4 |
| Infant formula | 6 |
| Non-human milk ** | 6 |
| Light meal *** | 6 |
| Regular meal **** | 8 |

Summary of *Fasting Recommendations to Reduce the Risk of Pulmonary Aspiration*. From: Anesthesiology, 1999;90:896-905

*** Examples of clear liquids include water, fruit juices without pulp, carbonated beverages, clear tea, and black coffee.**
**** Since non-human milk is similar to solids in gastric emptying time, the amount ingested must be considered when determining an appropriate fasting period.**
***** A light meal typically consists of toast and clear liquids.**
****** Meals that include fried or fatty foods or meat may prolong gastric emptying time. Both the amount and type of foods ingested must be considered when determining an appropriate fasting period.**

## CASE REPORT

### Identification

Female, 51 years old, 80 Kg, ASA II.

Placement of intragastric ballon for obesity by about 1 month.

Fasting: > 8 hours + previously confirmed by direct endoscopic Visualization.

Admitted for urgent endoscopic extraction of intragastric ballon at the Gastroenterology Department, due to food intolerance for one week long.

### Anesthesia

Sedation with an intravenous bolus of propofol

Monitorization: ASA *standards*

Premedication: metoclopramide 10 mg IV

### Anesthetic emergence

After balloon perforation in order to allow its aspiration and removal, the patient initiates an episode of regurgitation of all the content hidden by the balloon. The endoscope was immediately withdrawn and aspiration of food contents and emergent orotracheal intubation ensued, followed by assisted ventilation.

### Postoperative period

The patient was transferred to the emergency room and extubated after six hours.

• Chest x-ray: infiltrates at the left lower lobe.

At the observation room the patient was started on intravenous antibiotics.

Has always remained hemodynamically stable since then, with discharge after 48 hours to its hospital of origin.

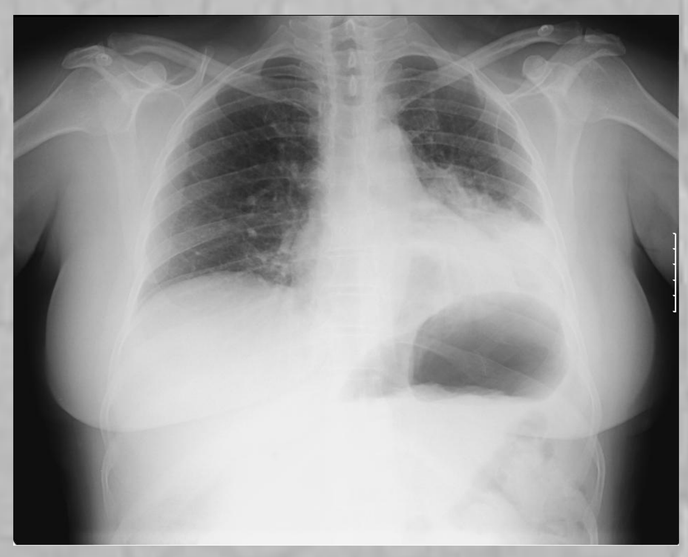

Figure 1 – Chest x-ray 24 h after Pulmonary aspiration of gastric contents

## DISCUSSION AND CONCLUSIONS

Currently there are no specific guidelines to aid in the pre-anesthetic risk stratification of patients submitted to sedation for GI procedures (3). Even with ideal preanesthetic conditions (2), the anesthetic procedures should be adjusted to each case individually, taking into account certain risk factors, such as gastric stasis.

REFERÊNCIAS: 1) Academic Emergency Medicine 2002; 9:35-42
2) Anesthesiology 1999; 90:896-905
3) Anesthesiology Clinics 2009; 27:71-85