

**EVALUATION OF GASTRIC RESIDUAL VOLUME IN
FASTING OBESE PATIENTS SCHEDULED FOR ELECTIVE
SURGERIES UNDER GENERAL ANESTHESIA USING
GASTRIC ULTRASOUND: A COMPARATIVE STUDY**

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2020

ABSTRACT

Background: Gastric ultrasound is an emerging tool to evaluate gastric content and volume preoperative. Sonography examination includes both a qualitative and a quantitative component.

Objective of the current study: is to evaluate gastric residual volume in obese patients versus healthy controls scheduled for elective surgery.

Methods: This observer experimental study compared the gastric volume predicted based on a sonographically measured cross-sectional area of the gastric antrum between normal weight and obese patients in semi-sitting and right lateral positions and therefore assesses the risk of aspiration for both groups preoperative.

Results: Data from 100 subjects suggested that gastric volume predicted by sonographic assessment was <1.5 mL/Kg in both groups (obese and nonobese) in right lateral and semi-sitting positions despite differences in CSA of the antrum. Both groups were at a low risk for aspiration besides, 98% were grade (0&1) with empty antrum and minimal fluid in right lateral position only respectively. Only 2% had distended antrum in both right lateral and semi-sitting position in both groups.

Conclusion: Despite the differences between obese and nonobese in their CSA seen by gastric sonography in both semi-sitting and right lateral positions (obese $>$ nonobese), both had low predicted gastric residual volume <1.5 mL/kg. Both groups were at low risk for aspiration and most of them were grade 0&1 with empty antrum and minimal fluid in right lateral position only, respectively provided that fasting at least 8 hours before an elective surgery.