

## PREDICTORS OF RESPIRATORY COMPLICATIONS IN PATIENTS WITH OBSTRUCTIVE SLEEP APNEA

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### Introduction

- Obstructive sleep apnea (OSA) is a common breathing disorder in surgical patients.
- It is important to identify patients with OSA at risk of respiratory complications in perioperative period and to take proper actions.

**Keywords:** obstructive sleep apnea, perioperative complications.

### Purpose

- To assess the predictors of respiratory complications in the perioperative period in patients with OSA using ROC curve analysis.

### Material and methods

- Analytical prospective cohort study of 400 patients scheduled for surgery.
- The Berlin questionnaire was used for screening of OSA.
- ROC curves for different variables associated with respiratory complications in perioperative period in patients with OSA have been analysed.

### Results

- Area under the curve (AUC) for for the neck circumference greater than 40 cm was 0.592,  $p=0.019$ , 95% CI 0.520-0.664 (Fig. 1.);
- AUC for preoperative hypertension was 0.564,  $p=0.1$ , 95% CI 0.492-0.637;
- AUC for the age greater than 50 years was 0.529,  $p=0.4$ , 95% CI 0.459-0.598;
- AUC for round morphotype (women) was 0.586,  $p=0.028$ , 95% CI 0.507-0.665 (Fig. 2.);
- AUC for waist circumference greater than 100 cm was 0.640,  $p=0.0001$ , 95% CI 0.568-0.712 (Fig. 3);
- AUC for endomorphic morphotype (men) was 0.479,  $p=0.59$ , 95% CI 0.401-0.558.

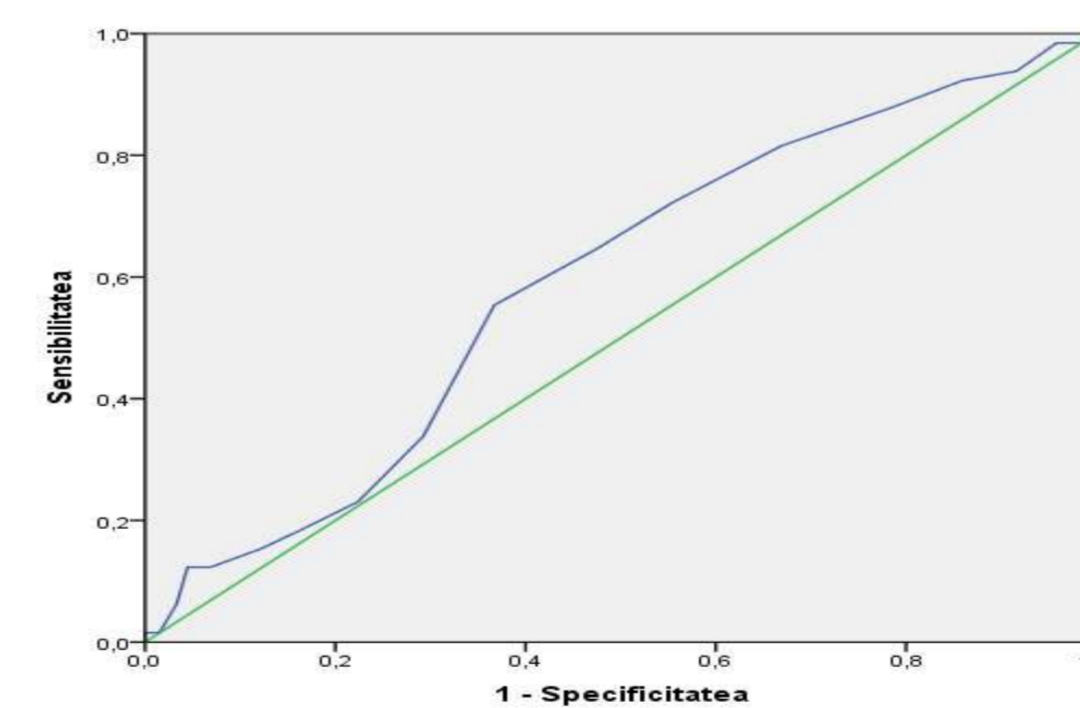


Fig. 1. ROC curve for the neck circumference > 40 cm.

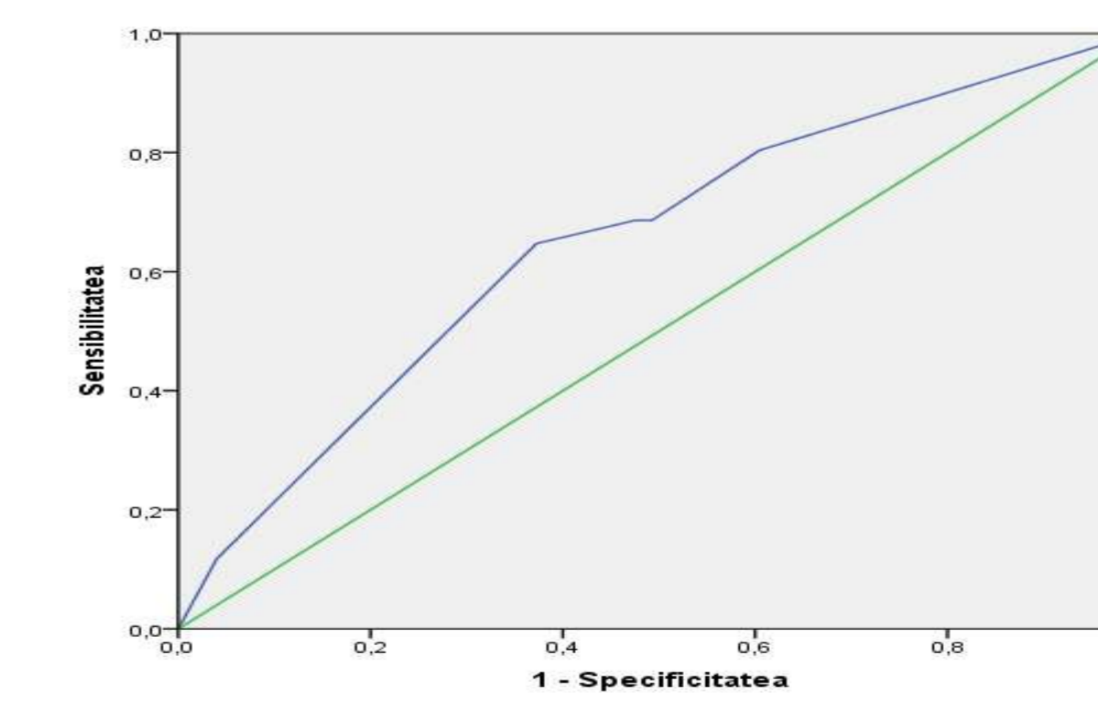


Fig. 2. ROC curve for the round morphotype (women).

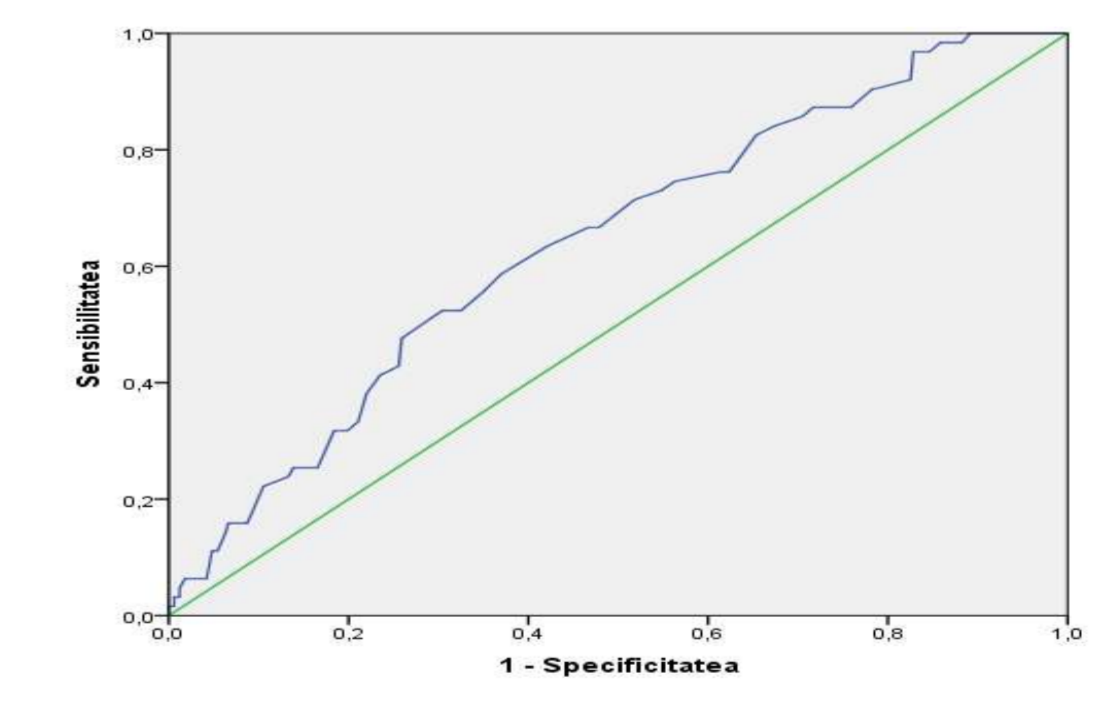


Fig. 3. ROC curve for the abdomen circumference > 100 cm.

### Conclusions

Of all the variables studied, only waist circumference greater than 100 cm, neck circumference greater than 40 cm and round morphotype (women) are useful for detection of respiratory complications in perioperative period in patients with OSA.