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## Impact of bariatric surgery on obstructive sleep apnoea–hypopnea syndrome in morbidly obese patients

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### Abstract

#### Background:

Obstructive sleep apnea (OSA) is commonly associated with morbid obesity. Weight loss following bariatric surgery results in resolution or improvement of OSA. However, few studies have done objective assessment of the impact of bariatric surgery on OSA.

#### Objective:

The aim of this study was to assess the outcome of bariatric surgery on OSA.

#### Setting:

The study was conducted in the teaching institution of a tertiary care centre.

#### Methods:

Twenty-seven morbidly obese patients seeking bariatric surgery were administered Epworth Sleepiness Scale (ESS) health questionnaire and subjected to overnight polysomnography. Repeat assessment using ESS and polysomnography was done at 3–6 months after surgery.

#### Results:

Mean age was  $42.4 \pm 10.5$  years, and majority (77.8%) were female. The mean pre-operative weight and body mass index (BMI) were  $126.4 \pm 24.9$  kg and  $48.4 \pm 8.2$  kg/m<sup>2</sup>, respectively. Nearly 29.6% patients had symptoms of excessive daytime somnolence based on ESS score and overnight polysomnography detected the presence of OSA in 96.3% patients, of which 51.9% had severe OSA. At mean follow-up of  $5.2 \pm 2.5$  months after surgery, mean weight and BMI decreased to  $107.4 \pm 24.5$  kg and  $41.2 \pm 8.2$  kg/m<sup>2</sup>, respectively. Mean ESS score and mean apnoea–hypopnea index declined from  $8.9 \pm 3.2$  to  $4.03 \pm 2.15$  (*P*