

PREVALENCE OF POST-BARIATRIC SURGERY SLEEP RELATED COMPLICATIONS IN A TERTIARY HOSPITAL IN SAUDI ARABIA

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BACKGROUND:

- Most patients going for bariatric surgeries are known to have Obstructive Sleep Apnea (OSA)
- Our study aims to detect respiratory complications post bariatric surgeries

METHODS:

- Retrospective
- Chart review of patients who underwent bariatric surgeries between 2017 to 2019 who also had sleep studies.
- main outcome was respiratory failure and unplanned intubation.
- We compared those outcomes to patient's BMI, baseline SpO₂, and pre-operative Polysomnography findings.

RESULTS:

67 patients underwent bariatric surgery who also had polysomnography prior to surgery. (Table 1. shows baseline characteristics.)

13 patients (19.4%) needed oxygen for post-operative hypoxia and 13 patients needed unplanned Positive Airway Pressure device (PAP). (Table 2. shows their baseline characteristics)

Table 3. shows case series of patients who had unplanned ICU admission post Bariatric surgery and their baseline characteristics.

There is a correlation between the severity of OSA and the unplanned PAP use postoperatively (Pearson chi² = 9.2394, P-value = 0.026) and correlation with post-operative hypoxia that required O₂ therapy which didn't reach statistical significance

Patient	Age	Gender	BMI	Baseline Spo ₂	Baseline HCO ₃	O ₂ nadir	AHI	ODI	Unplanned Intubation
1	48	F	56	95	23	91	26.8	0	No
2	20	F	85	94	24	80	83	0	Yes
3	70	M	53	94	26	32	74.7	75.7	No
4	27	F	52	97	28	82	9.5	0	No

Table 1.

	N =67
Age (years)	37 ± 12
Female	33 (49.3%)
BMI	50 ± 10
Average AHI (/hour)	40
Severe OSA	31 (47%)
Patients with O ₂ nadir less than 88%	38 (58%)
ODI (/hour)	8.9
Patients with ODI > 10	14 (20%)

Table 2.

	O ₂ need post OR (N =13)	Unplanned PAP post OR (N=13)
Age (years)	38.5	39.4
Female	5 (38%)	4 (30%)
BMI	54	57
Average AHI (/hour)	33.8	57.4
Severe OSA	4 (30%)	9 (69%)
Patients with O ₂ nadir less than 88%	6 (46%)	9 (69%)
ODI (/hour)	3.5	9.5
Patients with ODI > 10	2 (15%)	3 (20%)

Conclusion:

There was a correlation between the severity of sleep apnea and minor respiratory complications such as post-operative mild-moderate hypoxia.

There were few major post-operative respiratory complications in this study given its small cohort size.

It is still suggested to screen patients for OSA prior to bariatric surgeries.

Larger studies are needed.

