

## ABSTRACT

# “EVALUATION OF PRE-OPERATIVE AND POST OPERATIVE POLYSOMNOGRAPHY FOR OBSTRUCTIVE SLEEP APNEA”

## BACKGROUND

Obstructive sleep apnea which is an entity of sleep disordered breathing is a chronic disorder with various cardiovascular and neurocognitive sequelae. Among various available treatment modalities, surgery is indicated for patients who fail or refuse conservative management.

## OBJECTIVE

The purpose of the study is to assess the efficacy of soft tissue surgeries for the treatment of obstructive sleep apnea by comparing preoperative and postoperative polysomnography data (done at 3<sup>rd</sup> and 5<sup>th</sup> month) and by assessing the reduction in symptoms after surgery.

## MATERIALS AND METHODS

A retrospective and prospective study was conducted in 34 patients after getting ethical committee approval. The study population consisted of both sexes with age group of 20-40 years with complaints of excessive day time sleepiness. All patients underwent PSG and those patients with AHI >5 are further investigated with DISE and dynamic MRI to confirm the level of obstruction. Patients were channelized to different surgeries depending upon the level of obstruction. PSG done at 3<sup>rd</sup> and 5<sup>th</sup> month after surgery.

## RESULTS

Thirty four patients, 29 male (85.3%) with mean  $\pm$ SD age 37.53  $\pm$  5.2. mean  $\pm$ SD BMI 29.02  $\pm$  2.85, mean  $\pm$ SD ESS 16.41  $\pm$  3.09 underwent PSG at 3<sup>rd</sup> and 5<sup>th</sup> month after surgery. Surgery cure is defined as decrease in AHI greater than or equal to 50%

or a total of less than 10 events/hour. 28(82.4%) patients had 50% improvement in AHI, of which 2(5.8%) patients had more than 80% improvement. ESS was reduced to <10 in 27 patients (79.42%). Temporary VPI occurred in 6(17.6%) patients and bleeding in 4(11.8%) patients. None of the study population required ventilator support. Mean±SD duration of pain was 15.53±6.08 with maximum duration in patients undergoing multilevel surgery especially those who underwent tongue base surgery.

## **CONCLUSION**

Substantial proportion of general population suffer from sleep disordered breathing. With continued lifestyle modification and proper surgical technique directed at appropriate site of obstruction patients can be alleviated from sequelae of OSA.

## **KEYWORDS**

Obstructive sleep apnea, polysomnography, surgery, AHI, ESS, improvementew2o.