them were male and the remaining 45 patients (24,5%) were female. Somatization was detected in 100 (54,3%); anxiety in 68 (37%); obsession in 106 (57,6%); depression in 82 (44,6%); interpersonal sensitivity in 75 (40,8%); psychotic symptoms in 44 (23,9%); paranoid symptoms in 81 (44%); hostility in 73 (39,7%); fobic anxiety in 39 (21,2%) of the patients, who were evaluated with The SCL-90 Checklist.

Conclusions: It should not be forgotten that psychiatric findings can be added to the table as it is in other chronic diseases.

Sleep Breathing Disorders

EFFECT OF BARIATRIC SURGERY ON THE SEVERITY OF OBSTRUCTIVE SLEEP APNOEA IN PATIENTS AT A TERTIARY REFERRAL CENTRE – A PRELIMINARY ANALYSIS

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Introduction: Obstructive Sleep Apnoea (OSA) is the commonest sleep related breathing disorder with estimated prevalence of 2%-4% among adults. Prevalence of OSA is high among obese population. OSA is diagnosed by performing a sleep study measured as Apnoea Hypopnea Index (AHI) where AHI of ≥5/hour is diagnostic of OSA.

Bariatric surgery is performed with the aim of achieving weight loss and is usually recommended to individuals with a Body Mass Index (BMI) >40 kg/m^2 or to those with a BMI >35 kgm^2 associated with high risk comorbid conditions. It is advisable to screen all patients for OSA with a routine sleep study prior to bariatric surgery. Obesity is increasingly prevalent among Sri Lankans, and more and more patients are undergoing bariatric surgery. There is paucity of data globally as well as locally on the effectiveness of bariatric surgery over resolution of OSA.

Objectives: To assess the resolution of OSA in adult patients following bariatric surgery.

Method: We did overnight sleep studies (level 3 study or a Polysomnography(PSG) on 34 patients awaiting bariatric surgery. OSA severity was measured with AHI, where AHI of 5-14, 15- 29 and ≥30 categorize as mild, moderate and severe OSA respectively. Patients who completed 6 weeks or more, post operatively were re-evaluated by a sleep study. Daytime somnolence was assessed by Epworth Sleepiness scale(ESS).

Results: Of the total, 23 diagnosed with OSA (AHI>5/hr), of which, 8 are awaiting post-op evaluation, two were lost to follow up and 13 patients were re-assessed. There were 9 (70%) females. Mean age was 46.8 years (SD,10.4), 53.8% had hypertension, 38.5% had diabetes mellitus & and 7.7% had ischemic heart disease.

Five and three patients had severe OSA (mean AHI,61.5 events/hr, SD,25.0) and moderate OSA (mean AHI, 21.8events/hr ;SD,4.3) respectively.

Mean weight reduced from pre-operative 126.7 kg (SD,22.6) to 98.9 kg (SD,18.0) post-operatively while mean BMI dropped from 48.6 kg/m^2(SD,6.7) to 37.5 kg/m^2 (SD,6.0) (P< 0.001).

Mean AHI declined from 31.9(SD,28.9) to 12.4 (SD,11.9) (p< 0.01). OSA has completely resolved in 4 of 5 with mild OSA and 1 of 3 patients with moderate OSA. No resolution observed in the severe OSA category despite a statistically significant reduction of AHI (mean reduction of 41.6 events/hr; SD,29.0, p< 0.05). There was no evidence of significant influence by the presence of any chronic disease over mean BMI reduction or mean AHI reduction in this study sample.

Pre operatively eight had an ESS score of = >10, with two patients > 16. Post operatively ESS dropped below 10 among all, with improved daytime somnolence (p< 0.005).

Conclusion: Bariatric surgery seems to be effective in reducing AHI and resolution of OSA amongst mild and moderate OSA patients in this study sample.

Sleep Breathing Disorders

BIMAXILLARY ADVANCEMENT AS ALTERNATIVE TECNIQUE IN OUR OSAS COHORT

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Introduction: BiMaxillary advancement (BMA) is an effective alternative in the Obstructive Sleep Apnea Syndrome (OSAS) treatment, available for selected patients in our hospital. The primary endpoint is to describe the results obtained with this alternative technique.

Materials and methods: Prospective study of OSAS patients who underwent BMA between 2013-2015. The surgical indication was determined by a multidisciplinary committee. Polysomnography was performed both before and after surgery.

Results: We studied 20 patients, with a mean age of 40'75±8 years old, BMI 26'25±6.

10 patients were CPAP-intolerant and 10 asked for an alternative treatment. All the patients presented craniofacial abnormalities that were susceptible of surgery.

Previous mean AHI of 38±15 decreased to 11'22±13'65 after sugery.

18 patients had an AHI decreased to less than 50% of the initial one, and 12 achieved AHI< 5. The entire cohort improved sleepiness and snoring.

There were minor complications in 6 cases: epistaxis, dysphagia, long-standing pain, infection, and hematoma. A case of malocclusion required reintervention. A case of intolerance to osteosynthesis material required removal of the pieces. There was a case of long-term condylar remodeling with mandibular height loss.

Conclusions:

- BiMaxillary advancement surgery is an effective treatment for OSAS in our hospital in patients with retrognathia, micrognathia and retrusive profile.
- In more than half of the cases, OSAS is completely resolved with clinical improvement in all of the cases.

Behavior, Cognition and Dreaming

ASSESSMENT OF THE INABILITY TO COUNTERACT THE EFFECTS OF SLEEP DEPRIVATION ON COGNITIVE PERFORMANCE UNDER A LOW STIMULATION CONDITION

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Introduction: Sleep deprivation impairs cognitive performance. A low stimulation condition supposedly increases the cognitive impairment produced by sleep deprivation, but few studies have assessed this effect. The objective of this study was to measure sleep deprivation effects on cognitive performance in a low stimulation condition.

Materials and methods: Participants were 22 undergraduate students, age 19.05±2.21 years, 16 females. They were recorded in the laboratory at 14:00 h without sleep deprivation and after 24 h of sleep deprivation. On each recording, they responded a visual CPT (Continuous Performance Task) and an auditory CPT, to assess attention and its components (tonic alertness, phasic alertness, selective attention and sustained attention). The duration of each task was 11.7 minutes. Participants responded the visual CPT in a moderate stimulation condition, seated in a chair with the lights on; and the auditory CPT in a low stimulation condition, lying down on a bed in total darkness.

Results: After sleep deprivation, the participants showed a small reduction in attention and its components in moderate stimulation (visual CPT general correct responses control=92.80±3.62%, sleep deprivation=83.27±10.99%, t=4.40, p< 0.001, d=1.05). But attention and all its components declined to very low levels during the low stimulation condition (auditory CPT general correct responses control=87.04±11.17%, sleep deprivation=38.83±24.86%, t=9.45, p< 0.0001, d=2.37). After sleep deprivation, participants were able to sustain acceptable levels of cognitive performance for 6.99±4.76 minutes while seated, but in the low stimulation condition acceptable levels of performance were maintained for only 3.58±2.80 minutes, they continue responding at inefficient levels for another 4.90±2.51 minutes, until they stop responding at 8:49±3.27 minutes from the beginning of the low stimulation condition.

Conclusions: People working in a low stimulation condition are incapable to counteract the effects of sleep deprivation.

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