Title	A randomised controlled study of the effectiveness of continuous positive airway pressure, oral appliance and conservative measures in the treatment of mild to moderate obstructive sleep apnea
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RM-05 A randomised controlled study of the effectiveness of continuous positive airway pressure, oral appliance and conservative measures in the treatment of mild to moderate obstructive sleep apnea

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Introduction: Continuous positive airway pressure (CPAP) is considered the standard treatment for severe obstructive sleep apnea (OSA) but studies on the effectiveness of different treatment options for mild to moderate OSA are limited. The aim of our study was to evaluate the effectiveness of lifestyle modification measures (CM) alone and in combination with CPAP or oral appliance (OA) in improving symptoms and quality of life of subjects with mild to moderate OSA.
Method: Subjects were recruited from two sleep laboratories of two hospitals in Hong Kong. Recruitment was aimed at newly diagnosed mild to moderate sleep apnea subjects. These subjects were then randomized into three different treatment groups: CM, CM + CPAP, and CM + OA. Polysomnogram was performed both at baseline and 10 weeks after treatment while still using the assigned treatment. Sleepiness were assessed with Epworth Sleepiness Score, and quality of life were assessed with generic and disease specific questionnaires (health related quality of life score SF-36 and sleep apnea quality of life index SAQLI) at inclusion and after 10 weeks of treatment.
Results: 94 subjects finished the study. There was moderate decrease in AHI in CM+OA group and a greater decrease in CM+ CPAP group, while the AHI of subjects managed with CM alone remained the same. The relief of sleepiness was the greatest in CPAP group and smallest in CM group. Quality of life of subjects was also restored to that of normal level in the CPAP and OA groups after treatment while no change was observed in the CM group. The self reported compliance to OA was better than that of objectively measured CPAP compliance.
Conclusion: Both CPAP and OA are effective in treating symptomatic mild to moderate OSA while CM alone is of little effect.

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RM-06 A study on the effect of testosterone replacement on the development of obstructive sleep apnoea (OSA)

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Introduction: Obstructive sleep apnoea syndrome (OSA) is a common disease, it is characterised by snoring, repetitive occlusion episodes of upper airway resulting in desaturation and excessive daytime sleepiness. The male preponderance of this disorder, coupled with the reported development of OSA in patients following testosterone administration, suggest that androgens play a role in the pathogenesis of this disorder. One of the reasons for testosterone replacement lead to OSA might be redistribution of fat at neck region lead to decrease in muscle tone, or increase in muscle bulk around neck region result in narrowing of upper airway. The primary goal of the study is to find out the role and mechanism of androgen in the pathogenesis of OSA.
Method: Subjects were recruited from Endocrine Clinic of one regional hospital and one University hospital. Recruitment was aimed at newly diagnosed hypogonadal male requiring testosterone administration. Polysomnogram (PSG) was performed at baseline, 24 and 48 weeks after testosterone treatment. Body habitus, body fat and serum testosterone level were monitored regularly. Magnetic resonance imaging of the neck and abdomen were performed at baseline, 6 and 12 months after testosterone replacement for measuring.
Results: Four subjects recruited and two had been reassessed with PSG after 24 weeks of testosterone replacement. Their body mass index increased as well as apnea hypopnea index (AHI). One of them who had mild OSA at baseline showed moderate OSA on reassessment PSG. The other one who had no OSA at baseline remained free from OSA.
Conclusion: To be drawn after study finished

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