38.9 *Efficacy and side effects of an oral appliance in the treatment of mild and moderate obstructive sleep apnoea in Chinese subjects*

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Introduction: Obstructive Sleep Apnoea (OSA) is a complex syndrome occurring during sleep in which periods of cessation of breathing occur despite inspiratory effort. Standard treatment is Continuous Positive Airway Pressure which is effective but patient compliance to treatment is sub-optimal. An oral appliance (OA) has been reported to have a higher compliance, but its efficacy in OSA is not well delineated, especially in non-Caucasian patients.

Aim: To assess the efficacy, compliance and side effects of an OA in the treatment of OSA in Chinese subjects.

Method: Patients will be recruited from the Sleep Related Breathing Disorders Clinic, Queen Mary Hospital, HK, according to the inclusive criteria - those patients with 1) excessive daytime sleepiness with Apnoea/hypopnoea index (AHI) range from 10 to 40 or 2) with AHI > 40 but refuse CPAP. Exclusive criteria are 1) those with unsatisfactory dental condition 2) patients with obvious airway obstruction 3) less than 21 years old 4) unstable associated disease 5) high risk occupation e.g., driver. An OA was fabricated after obtaining baseline measurements on comprehensive overnight sleep study, cephalometric CT, radiograph and questionnaires. Re-assessment was conducted at 6 weeks and 1 year after the OA delivery.

Oral Appliance Description: This is an intra-oral removable device. It holds the mouth open at a protruded, yet, comfortable position when it is being worn at night. The mandible, together with the tongue, will then be postured at anterior position so as to increase the airway patency.

Preliminary Results: 10 patients (7M and 3F) have been studied. Mean age was 50.1 years. With the use of oral appliance, all patients reported an improvement in the symptoms. The mean AHI on sleep study at 6 weeks decreased from 23.6 to 6.6. Transient side effects included mild tooth pain (5 cases), masticatory muscle tiredness and temporo-mandibular joint tenderness (4 cases) and others. All of these minor discomforts were resolved after some adjustment on the OA and patient adaptation. All patients felt either satisfactory (4 cases) or acceptable (6 cases) efficacy of the OA in improving their symptoms. The fitting and maintenance of the OA was regarded as either convenient (6 cases) or acceptable (4 cases). The reported compliance was 6.1 days/week.

Conclusion: The oral appliance may he an effective alternative in the treatment of of OSA in Chinese subjects. Side effects are mild and temporary. Long term evaluation is in progress.

39.1 Use of deltopectoral flap for head and neck reconstruction

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Deltopectoral flap (DPF) is a fasciocutaneous flap which is based medially on the perforators of the internal mammary artery. Its proximity to the Head and Neck region allows it to be used frequently for reconstruction of defects created after tumour excision.

One hundred and seventeen DPFs were performed on 113 patients in the Department of Surgery, University of Hong Kong Medical Centre, Queen Mary Hospital between January 1976 and March 1998. One hundred and nine flaps (96.4%) were used for skin coverage after resection of head and neck malignancy. Eight flaps (3.6%) were used for pharyngostome reconstruction. Most of defects were created either after resection of the involved skin by tumour or after resection of skin overlying the tubes for brachytherapy. In some patients, the DPF was needed to replace the previously irradiated unhealthy skin.

The male to female ratio was 4 to 1. The age ranged from 22 to 83 years (median: 57 years). Among the 113 patients, 105 (90%) had previous radiotherapy. The overall complication rate was 11.7% (10 DPFs). There were 1 total flap loss and 4 distal flap necrosis, which required surgical debridement. There were 4 wound infection and 1 haematoma formation, which were managed conservatively. There was no procedure-related mortality.

In conclusion, DPF provides an alternative and reliable method for reconstruction in the Head and Neck region. It is easy to raise. Although the donor site needs skin graft to cover, the morbidity is acceptable.