

The Breathe feature where we give you an expert and a topic, and you have the chance to ask them any questions you wish via breathe@ersj.org.uk

Ask the expert: Obstructive sleep apnoea syndrome

Q 1: Occasionally, I encounter obstructive sleep apnoea syndrome (OSAS) patients with seemingly adequate continuous positive airway pressure (CPAP) therapy who still complain of daytime sleepiness. Adjustments of mask and CPAP settings have been unrewarding. What do I do next?

A 1. Consider sending them to their general practitioner! Daytime sleepiness may have many causes, and it is important for the respirologist not to be too focused on respiratory mechanisms. A positive OSAS diagnosis may not be the only cause of the patient's sleepiness. Undiagnosed depression, diabetes and obesity are also important causes [1]. My frank advice is to avoid spending too much time and effort on technical refinement of CPAP treatment. Otherwise it is easy to get stuck in this often frustrating situation. If you do not feel competent in dealing with the patient's nonrespiratory problems, refer him back for proper evaluation by his/her general practitioner. It is probably more time effective to use your efforts to assist other OSAS patients that have been on your waiting list in the meantime.

Q 2: I have an overweight chronic obstructive pulmonary disease (COPD) patient whom I suspect might also have OSAS. However, I am somewhat worried in case of a positive diagnosis. Will CPAP treatment put my COPD patient at risk for a pneumothorax?

A 2: Probably not. Pneumothorax is a rare complication of CPAP treatment, even in the presence of COPD. The old concept of overlap syndrome is still highly valid. The likelihood of hypercapnia in OSAS patients is much greater in the presence of even a modest airflow obstruction [2]. I think it is unfair to these patients not to offer them CPAP. We usually accept a considerably higher risk for side-effects from *e.g.* pharmacological treatment if we consider the treatment to be beneficial to the patient.

Q 3: I have a number of OSAS patients on CPAP who are compliant and report beneficial effects from treatment, however downloaded data from the CPAP device indicate significantly elevated residual apnoeas (or "events during treatment"). How do I handle the situation?

A 3: This is sometimes called complex sleep apnoea. I assume that hypercapnic respiratory failure has been ruled out in your patient. In normocapnic cases, this



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phenomenon may occur early on in CPAP treatment of patients who start with a high apnoea/hypopnoea index. It probably reflects that control of respiration is still imperfect but the situation is very likely to stabilise over time [3].

Another explanation may be that the patient has severe cardiac insufficiency (which is probably known to you), and that he/she therefore has central apnoeas or hypopnoeas. Coronary patients may be surprisingly symptom free in this situation [4]. Whether these patients benefit clinically from correction of their apnoeas is still an open question. Therapeutic options are *inter alia* a trial of oxygen in CPAP or switching to other devices such as adaptive servo ventilation (ASV). ASV may stabilise the situation [5], however the device is expensive. There are large ongoing multicentric studies on the issue. In my opinion, the evidence is still too weak for substantial beneficial effects on morbidity/mortality and health-related quality of life to recommend widespread use of ASV.



References

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