

P267 ASSESSMENT OF COGNITIVE DYSFUNCTION USING THE COGNITIVE FAILURES QUESTIONNAIRE (CFQ) TOOL IN PATIENTS WITH OBSTRUCTIVE SLEEP APNOEA SYNDROME (OSAS)

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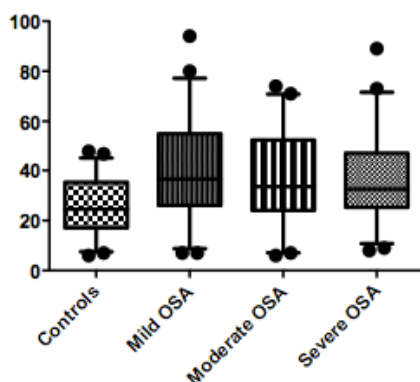
Introduction A wide range of cognitive deficits has been identified in patients with untreated OSAS and there has been a growing interest in the evaluation of cognitive deteriorations. The CFQ (Cognitive Failures Questionnaire) is a measure of self-reported deficits in the completion of simple everyday tasks that a person should normally be capable of completing without error and includes failures in attention, memory, perception, and motor functions. We hypothesised that patients with OSAS exhibit worse cognitive dysfunction as compared to healthy controls and this can be evaluated with the CFQ.

Methods 133 (ESS 12+/-6, ODI 31+/-24) untreated OSAS patients and 50 healthy controls (ESS 3+/-2) were invited to complete the CFQ. Patients and controls were asked how often they make various common mistakes on a 5-point Likert scale, from 0 (never) to 4 (very often). CFQ was scored by adding up the ratings for twenty-five questions, the highest possible total being one hundred, with a higher score indicating a higher incidence of cognitive failures. Comparisons were made using one way ANOVA.

Results There was a significant difference in scores between patients and the controls (26±1.6 & 38 ±1.6, P<0.0001). This difference remained significant when different severities of OSAS (mild, moderate, severe, as per ODI) were compared with controls. However there was no difference when different severities of OSAS were compared against each other (Figure 1).

Conclusion Patients with OSAS have a significant higher CFQ score compared to healthy controls. The CFQ is easy to complete and score and our data suggests it may be a useful tool for assessing cognitive dysfunction in OSAS.

Comparing CFQ Score between controls and patients



Abstract P267 Figure 1

P268 EFFECT OF CPAP TREATMENT FOR OSA ON VISUAL PROCESSING OF DEGRADED WORDS

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Introduction It has been shown in a 6 month non-randomised clinical trial that patients with both diabetic macula oedema and obstructive sleep apnoea (OSA) improved vision by one line on the

logMAR chart if they used CPAP for more than 2.5 hours/night, compared to those using for less than 2.5 hours/night. However there are many potential explanations for this improvement, including reduced sleepiness leading to increased effort to read the logMAR chart, rather than any direct improvement in retinal function. We are assessing if non-visually impaired patients, treated for OSA, also improve their ability to read visually degraded words, thus simulating impaired vision.

Methods A specially designed computer programme repeatedly presents five-letter words for three seconds, with one second intervals between. Progressively, the bottom halves of the letters making up the words are removed, making them harder and harder to read. The point at which only 50% of the words are correctly recognised is 'hunted' by increasing and decreasing the % revealed, analogous to a hearing test that hunts the auditory threshold. Preliminary tests on normal subjects established that a 10 minute training period, followed by a 10 minute rest, and then by a 10 minute trial period, produced stable results with little or no learning effect over several weeks. 23 symptomatic patients with OSA have been tested pre CPAP, and so far only 5 have been re-tested approximately 2 weeks post CPAP.

Results The average % of words needing to be revealed to allow 50% correct recognition in the 23 subjects was 35% (range 23 to 64%). In the 5 restudied so far this was 37% pre CPAP, and 40% post.

Conclusions Although the study is not yet finished, the preliminary results are not supporting the hypothesis that improved vision in patients with diabetic macular oedema post CPAP treatment is likely to be due to reduced sleepiness, improved vigilance or improved enthusiasm for reading the logMAR chart.

TEST WORD

Abstract P268 Figure 1

P269 CPAP THERAPY DOES NOT REDUCE SERUM URIC ACID LEVELS IN OBSTRUCTIVE SLEEP APNOEA

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Obstructive Sleep Apnoea (OSA) is associated with a high prevalence of hyperuricaemia, which occurs in up to 57% of men with severe OSA, most likely due to increased oxidative stress. Previous work has shown that treatment of OSA with Continuous Positive Airway Pressure (CPAP) reduces serum and urinary uric acid levels, but these studies have been conducted without appropriate control groups. We aimed to assess this effect in a randomised controlled trial.

Stored serum samples from a previously described trial group were analysed (1). This consisted of samples taken from 38 men with known type 2 diabetes and newly diagnosed OSA (>10 dips/h >4% in oxygen saturation (ODI)), randomised to receive either therapeutic (n=19) or placebo CPAP (n=19) for 3 months. Serum Uric Acid (SUA) levels were measured from samples taken at baseline and after 3 months CPAP.