Author's response to reviews

Title: Autoadjusting-CPAP effect on serum Leptin levels in Obstructive Sleep Apnoea patients

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Dear Sir

We enclose here with the manuscript entitled: « Autoadjusting-CPAP effect on serum Leptin levels in Obstructive Sleep Apnoea patients» for submission to BMC Pulmonary Medicine.

Our study was approved by the Ethical Committee of the Hospital São João and by all co-authors and has not been (and will not be) published elsewhere.

This is one of the largest studies analysing the variation of leptin serum levels in OSA and its relationship with effective treatment. We included 98 male patients and studied them for a long period of time- 6 months, thus trying to clarify the short and long term impact of Autoadjusting Continuous Positive Airway Pressure (Autoadjusting-CPAP) on circulating leptin values.

There are some papers studying the effect of traditional Continuous Positive Airway Pressure (CPAP) treatment on leptin serum levels in OSA patients; however the effect of Autoadjusting-CPAP therapy in leptin production has never been published.

In fact, it has been demonstrated that APAP is as effective as CPAP therapy in correcting respiratory events, nocturnal hypoxemia and improving daytime sleepiness. As with Autoadjusting- CPAP, patient’s preference and compliance seem better in some studies, and it also avoids CPAP titration by polysomnography (consequently reducing waiting lists) there is a trend for increase its use worldwide.

However there is not yet evidence about the impact of Autoadjusting-CPAP treatment in cytokines, cardiovascular disease biomarkers and hormones known to be altered in these patients.
So, this work adds clinically relevant information about a rising therapy approach in OSA patients.

In our study we could demonstrate that short and long-term Autoadjusting-CPAP therapy has a small and not significant effect on leptin serum levels.

Although we present a study with negative results, we think it can still add to our knowledge. As Autoadjusting-CPAP use is on the rise, the impact of this treatment on cardiovascular risk may be an important issue for the clinician to decide positive airway pressure therapy options.

We remain with our kindest regards,
Yours sincerely,
Marta Drummond, MD           João Carlos Winck, MD, PhD
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