

voltado para as causas específicas. O Teste das Múltiplas Latências do Sono (TMLS) é padrão ouro para a avaliação da sonolência excessiva diurna. Ele consiste em 5 registros diurnos e analisa-se a média das latências para o início do sono e o número de episódios de sono REM.

Objetivos

Identificar as principais indicações para a realização do TMLS, correlacionando-se também a distribuição das médias da latência para o início do sono, do número de episódios de sono e do número de episódios de sono REM.

Métodos

Foram avaliados todos os TMLS dos participantes que aceitaram fornecer seus dados para pesquisa e que realizaram o exame entre novembro de 1994 a novembro de 2014, de pacientes ≥ 18 e ≤ 65 anos. O teste de Shapiro-Wilk foi usado para testar a normalidade. Foram calculadas as percentagens de 3 variáveis: distribuição das médias da latência para início do sono, número de episódios do sono e número de episódios de sono REM.

Resultados

Foram avaliados 725 pacientes, com mediana de idade de 34 anos (P25=27, P75=48), do 53% do sexo feminino ($n=384$). A mediana do índice de massa corpórea foi 25 kg/m² (P25=22,2, P75=27,9). As indicações mais frequentes foram: sonolência excessiva ($n=133$, 60%) e narcolepsia ($n=84$, 38%). A mediana da média das latências para o início do sono foi 6,3 minutos (P25=2,8, P75=9,6). Número de episódios de sono: 0–14,7%, 1–3,3%, 2–3,4%, 3–7%, 4–13,4%, 5–58%. Número de episódios de sono REM foi: 0–54,2%, 1–19%, 2–11%, 3–5,5%, 4–5,4%, 5–4,6%.

Conclusão

A maioria de nossa amostra foi composta de adultos jovens, do sexo feminino e com obesidade. As principais indicações foram sonolência excessiva e narcolepsia. A mediana das médias das latências foi 6,3 minutos, sendo que a maioria dos pacientes apresentou 5 episódios de sono, embora a maioria não tenha apresentado episódios de sono REM.

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THE EFFECT OF BODY MASS INDEX ON THE UPPER AIRWAY OF SEVERE OBSTRUCTIVE SLEEP APNEA PATIENTS

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Resumo

Introduction and objective

Obstructive sleep apnea is a common disorder, with prevalence

around 20%, influenced by age, gender and obesity, but remains underdiagnosed in the general population. Moreover, upper airway obstruction during sleep can also result from alterations in either anatomic properties. The negative expiratory pressure (NEP) is a rapid and non-invasive test that reflects upper airway propensity to collapse and thus, providing an objective assessment to identify patients at high risk of obstructive sleep apnea (OSA). The aim of this study was to verify if the upper airway collapsibility assess through the NEP test can be influenced by body mass index (BMI) in severe OSA patients.

Methods

Fifty-four subjects with sleep disorders complain were divided in three groups. G1 were composed by subjects with apnea/hypopnea index (AHI) lower than 5 events/hour and BMI lower than 30 kg/m², G2 composed by subjects with BMI lower than 30 kg/m² and AHI greater than 30 events/hour and G3 was composed by subjects with BMI greater than 35 kg/m² and AHI greater than 30 events/hour. All subjects performed a diurnal pulmonary function test, a nocturnal sleep monitoring performed by a portable computerized system and a NEP of -10 cmH₂O was applied in the morning before the portable home monitor testing session with the patients in a sitting position, awake with eyes open, with the neck in a neutral position, wearing a nose clip.

Results

The groups were gender-matched, with mean age of 48.5 ± 13.71 , 52.55 ± 8.68 , 54.55 ± 9.65 , for G1, G2 and G3 respectively; and at least 70% of each group were composed by men. The mean AHI was 2.83 ± 1.32 , 54.66 ± 14.63 and 61.08 ± 14.92 , respectively on G1, G2 and G3. The expired volume at 0.2 s (VO₂) after NEP application presented the optimal cutoff point at 23%, as showed in the previous study, with a sensitivity of 100% and a specificity of 45.6% predict an AHI ≥ 30 events/hour. In the preset study, both G2 and G3 presented VO₂ less than the cutoff point, representing that the BMI did not interfere on the upper airway collapsibility in patients with severe OSA.

Conclusion

In the present study, the VO₂ of non-obese and obese patients did not varied on severe OSA patients. This fact may suggest that the anatomical and physiological factors might be as decisive as the fat deposit on the neck to development of OSA. Obese subjects tend to be the stereotype of sleep apnea but they are not the only subjects on risk.

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THE EFFECT OF POSTURE IN FLUID SHIFT OF HEALTHY MEN

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Resumo

Recent studies have shown that the fluid shift from the leg to the neck when the subject assumes the supine position contributes to upper airway collapsibility during sleep. However, the dependence of different postures in fluid has not been completely elucidated. We hypothesized that posture (supine vs sitting position) will have opposite effects on fluid shift displacement. **Methods** This was a cross over study in which 18 healthy male subjects remained still for 60 minutes at the supine or seated position. The experiments in the 2 postures were done in different days and the sequence was randomized. Segmental bioimpedance (InBody S10, Biospace), cervical, abdomen and calves circumferences and were measured at time 0 and 60 minutes. **Results** The subjects were characterized by: age and body mass index $24.09 \pm 2.57 \text{ kg/m}^2$. Baseline parameters were similar in supine position at the beginning of the study in both positions and were: cervical circumference $38.46 \pm 1.45 \text{ cm}$, right calf circumference 38.20 ± 2.32 left calf circumference 38.27 ± 2.10 . Changes in leg segmental water in the supine position vs sitting position were significantly different (change: left leg: decrease of $127 \text{ ml} \pm 0.164$ in supine vs increase of $144 \text{ ml} \pm 0.300$ in seated position ($p=0.03$). Right leg: decrease of $159 \text{ ml} \pm 0.154$ in supine vs increase of $52 \text{ ml} \pm 0.110$ in seated position ($p=0.03$). Right calf circumference raised $0.60 \text{ cm} \pm 0.33$ in seated position while decreased $0.57 \text{ cm} \pm 0.51$. Left calf raised $143 \text{ ml} \pm 0.269$ vs decreased $127 \text{ ml} \pm 0.269$ ($p=0.03$). Cervical circumference raised $0.54 \text{ cm} \pm 0.57$ and reduced $0.60 \text{ cm} \pm 60$ in the supine position ($p < 0.0001$). **Conclusion** Human body is subjected to significant posture dependent fluid shift. One hour at the sitting position is sufficient for a significant liquid accumulation in the legs with a decrease in neck circumference.

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THE NEW TOOL TO SCREENING OBSTRUCTIVE SLEEP APNOEA: NEGATIVE EXPIRATORY PRESSURE TEST

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Resumo

Introduction and objective

The negative expiratory pressure (NEP) test is proposed to assess upper airway collapsibility in patients with obstructive sleep apnea (OSA). Expiratory flow limitation (EFL) has been described as a transient or sustained decrease in expiratory flow during the application of the NEP test. The aim of this study was to describe the application of a new NEP method for assessing EFL during spontaneous breathing to identify patients at risk for OSA.

Methods

Upper airway collapsibility was evaluated by measuring decreases in flow and expired volume during the first 0.2 s after the application of NEP at 10 cmH₂O. The NEP test was easily applied to evaluate EFL caused by upper airway obstruction in patients with OSA.

Results

The NEP is a method for detecting upper airway flow limitation and has been used worldwide over the past 2 decades. Authors have applied the NEP in a number of different subjects including healthy individuals, patients with chronic obstructive pulmonary disease, obese individuals, and those with sleep disorders such as OSA, to detect airflow limitation.

Conclusion

A number of studies have been performed in different populations and have shown that NEP is a reliable method for detecting upper airway collapsibility and can be used as a screening method for diagnosing moderate to severe OSA.

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TRATAMENTO CIRÚRGICO DE BENEFÍCIO ANTECIPADO DA SÍNDROME DA APNEIA OBSTRUTIVA DO SONO: RELATO DE CASO

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Resumo

A Síndrome da Apneia Obstrutiva do Sono (SAOS) é uma doença crônica, evolutiva e com graves repercussões sistêmicas. Apresenta fatores predisponentes como obesidade, variações no tônus muscular, alterações anatômicas do esqueleto facial e dos tecidos moles que circundam a faringe. Os sintomas evidenciados como o sono excessivo diurno, falta de concentração, impotência sexual, disritmias noturnas, dores de cabeça matinais e depressão estão entre os mais relatados, sendo a polissonografia, o exame mais eficaz para diagnosticar a severidade da síndrome e dessa forma, auxiliar com segurança no planejamento do tratamento que tem como objetivo devolver a saúde, o bem-estar e a qualidade de vida ao indivíduo. A terapêutica da SAOS tem caráter multidisciplinar e engloba desde medidas clínicas até cirúrgicas, fazendo-se necessária a participação do cirurgião-dentista em ambas as esferas. Diante da alta morbidade e mortalidade, nos casos com indicação cirúrgica, a opção de escolha “Surgery First” ou “Benefício antecipado” de avanço bimaxilar deve ser considerada sempre que a má oclusão inicial não comprometa a estabilidade da técnica cirúrgica. No caso clínico apresentado, o paciente era portador de SAOS