The intervention and aim of study: An often reported problem in the history of patients with Sleep-Apnoea-Syndrome (SAS) is an increased frequency of trauma, emphasizing its degree of severity [2]. This is explainable through a tendency to snore during daytime and disturbances of concentration by a fragmentation of the sleep stages. In a former study [1] we have shown, that in a regular group of patients, entering an emergency room directly after an accident the prevalence of significant anamnestic implications for a SAS - there are regular snoring, tiredness during the day and impulsive impulse to fall asleep and frequently observed apnoea - is significantly higher in those patients with multiple accidents in the past three years compared to those with a single accident in this period. Therefore the above-mentioned cardinal symptoms of SAS should be explored while taking the trauma-specific history. Especially in relation with multiple accidents they require further diagnostics and if necessary therapy.

Methods: Consequently in this study from February 1st, 1995 to January 31st, 1996 we have proved the results of a SAS-monitoring with the APNOESCREEN-II in patients of a trauma-care ward respecting strict excluding criteria: s.e alcohol, connubial, cerebral, cardiac and circulatory diseases exc. 186 patients between 35 and 65 years of age were interviewed during the first 10 days after a self-caused accident, where 122 showed symptoms pointing out a possible SAS (65.6%). Of those, 53 could be recorded and scored with this portable monitoring system. Results and conclusion: 22 patients could be classified as an apnoea-index of ≥ 10/h and a desaturation-index of ≥ 10/h. Another 22 patients could be classified as limited SAS-positive with an apnoea-index of > 10/h or a desaturation-index of ≥ 10/h. 9 patients were scored as SAS-negative with an apnoea-index and a desaturation-index of < 10/h. The high percentage of SAS-positive (41.5%) and limited SAS-positive (41.5%) patients in this group of trauma-patients with symptoms pointing out a possible SAS, indicates the need of neuroses SAS-related history-taking and also SAS-monitoring also on a trauma-surgical ward. This is important for an adequate therapy, but also for serious accident-prevention.


P0508

Effect of Mandibular Advancement Splint on Psychological Function in Patients with Obstructive Sleep Apnea

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Five patients with obstructive sleep apnea (OSA) were treated with mandibular advancement splint (MAS) which held the mandible anteriorly and increased the oropharyngeal and hypopharyngeal dimension. There was a significant decrease of number of apneaic and hypoxemic episodes during sleep after a few weeks of MAS treatment. A great advantage of MAS could be drawn due to lack of agreement.

Methods: The spirometry performances of 13 PAs were recorded on videocam. A score list was developed adhering to international recommendations. (13 items on instruction and 7 on performance). Qualified lung function technicains (7) assessed the PAs performances from the videocam. If kappa-coefficients between the technicains was ≥ 0.6, it was used as "gold standard". Results: The technicains agreed well on 9 items regarding the instructions. On the items (encouragement, 'head extended', demonstration PVC, 'do not lean' and 'till no air is left') mean percentage of adequate was poor for quality of encouragement and good for 'lip positioning' and 'air leakage'. On seven items no conclusion could be drawn due to lack of agreement.

Conclusions: Sixteen items could be evaluated. The PAs gave adequate instruction in "four out of nine" instruction items. For the lung function measurements themselves PAs did not give adequate encouragement. The patients expressed that MAS treatment should be "two out of three at all" evaluable items. The main reason for the low agreement between lung function technicains on assessing the lung function measurement is probably due to the lack of a visual display of the flow volume curve.

P0509

Spirometry in General Practice: The Performance of Practice Assistants

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Background: Although the use of spirometers in general practice is rising, the quality of spirometry procedures, performed by practice assistants (PA), has never been studied.

Methods: The spirometry performances of 13 PAs were recorded on videocam. A score list was developed adhering to international recommendations. (13 items on instruction and 7 on performance). Qualified lung function technicains (7) assessed the PAs performances from the videocam. If kappa-coefficients between the technicains was ≥ 0.6, it was used as "gold standard". Results: The technicains agreed well on 9 items regarding the instructions. On the items (encouragement, 'head extended', demonstration PVC, 'do not lean' and 'till no air is left') mean percentage of adequate was poor for quality of encouragement and good for 'lip positioning' and 'air leakage'. On seven items no conclusion could be drawn due to lack of agreement.

Conclusions: Sixteen items could be evaluated. The PAs gave adequate instruction in "four out of nine" instruction items. For the lung function measurements themselves PAs did not give adequate encouragement. The patients expressed that MAS treatment should be "two out of three at all" evaluable items. The main reason for the low agreement between lung function technicains on assessing the lung function measurement is probably due to the lack of a visual display of the flow volume curve.