

Tilmelding af Foredrag

Foredragets titel

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Titel: Diagnostics in Childhood Obstructive Sleep Apnea and Outcome of Adenotonsillotomy

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Uddannelsesniveau

HU læge og PhD

Introduktion

The gold standard for diagnosing childhood Obstructive Sleep Apnea (OSA) is a polysomnography (PSG), which measures respiratory parameters and brain activity during sleep. Due to high costs and labour-intensive procedures, PSG is not available for most children undergoing surgical treatment for suspected OSA. Home respiratory polygraphy (PG home) is a simplified version of PSG, measuring only breathing during sleep. It is widely used in adults, however, controversy remains regarding the validity of PG for diagnosing childhood OSA.

Materiale/metode

- 1) Feasibility of conducting PG home in children was investigated, in terms of obtaining sufficient signal quality and in terms of parent-reported feasibility.
- 2) PG was compared to gold standard PSG, in children aged 2-10 years, undergoing surgery for suspected OSA.
- 3) The outcome of adenotonsillotomy in children of study 2 was investigated regarding PSG parameters and parent reported symptom burden. All children underwent tonsillotomy due to suspected OSA based on a clinical diagnosis



defined by existing guidelines.

Resultater

- 1) PG home was found feasible to conduct by parents. Probe fixation techniques for further improving signal quality were identified.
- 2) Although Bland Altman analysis identified a systematic underestimation of respiratory events by PG compared to PSG, PG performed with good-to-excellent accuracy.
- 3) Respiratory PSG parameters and parent-reported symptoms significantly improved after tonsillotomy. Thirteen(26%) children did not have baseline OSA on PSG. No significant improvements in respiratory PSG parameters were found in these children, nor in children with mild OSA.

Diskussion

Overall, PG was found to be a feasible and valid tool for diagnosing OSA in children with high clinical suspicion of OSA. However, a lowered treatment cut-off for PG should be considered due to underestimation of PG compared to PSG. Tonsillotomy was found safe and efficient in treating children with verified moderate/severe OSA.

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