Conclusions:

1. The OSA-prevalence was very high (82.6%) among children with Down syndrome, and therefore continued screening and treatment are strongly motivated.

2. Uncertain surgical efficiency was indicated in this population, and no significant difference in results between ATE and APP was shown. It should though be taken into consideration that the frequency of postoperative polysomnography was low, and probably skewed, and that the groups were unequal and small.

Objectives:

To register the obstructive sleep apnoea (OSA) prevalence among children with Down syndrome diagnosed with polysomnography at Karolinska University Hospital.

Further, to evaluate the surgical efficiency and compare first-hand treatment option adenotonsillectomy (ATE) with adenopharyngoplasty (APP) with suturing of the tonsillar pillars.

Materials:

Children <18 years old with Down syndrome that underwent polysomnography at Karolinska University Hospital were included.

OSA-prevalence and degree was calculated. Results from postoperative polysomnography were compiled to evaluate surgical efficiency. Pre- and postoperative results from APP- and ATE-patients were compared.

Results:

138 patients were included.

OSA-prevalence was found to be 82.6% and 39.9% had severe OSA.

81 patients underwent surgery, and 33 postoperative polysomnography.

Postoperatively (n=33) the prevalence of moderate or severe OSA was 63.6%.

In the ATE- and APP-patients with pre- and postoperative polysomnography (n=20) the values were significantly reduced, but no difference between the groups was shown.

Take home message:

Down Syndrome is at risk for both OSA and post-surgical-residual.