

## **Human papilloma virus (HPV) vaccination is associated with reduced number of surgical treatments, an observational study on recurrent respiratory papillomatosis in Northern Sweden**

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### Background

Recurrent respiratory papillomatosis (RRP) is a wart-like lesion mainly affecting the larynx, caused by human papillomavirus (HPV) genotypes 6 and 11. The disease affects both children and adults, and there is no cure. Surgery is the current symptom-relieving treatment; however, HPV vaccination is used as an adjuvant treatment.

The aims were to study effects of HPV vaccination in RRP cases and to compare juvenile-onset to adult-onset disease and high treatment frequency (TF) to low TF cases.

### Material and Method

Medical records of RRP patients were studied from May 2006 to January 2023. Eighty-five RRP cases, tested for HPV genotypes with PapilloCheck®, were included. Vaccination- onset- and treatment analysis were performed.

### Results

Twelve percent of the cases were vaccinated. The number of surgeries decreased from 2.0 to 0.8/year after HPV vaccination. Most cases had an adult-onset and less than one treatment per year. Juvenile-onset cases had a higher vaccination treatment ratio compared to adult-onset.

### Conclusions

HPV vaccination was associated with a lower number of treatments per year, supporting the use of vaccination as an adjuvant treatment.

The significance of this study shows that vaccination as adjuvant treatment to surgery may lead to increased quality of life for RRP patients and saved healthcare resources.