

## Bacteria associated with stomach ulcers not detected in enlarged adenoids in children

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Bacteria that cause stomach inflammation and ulcers were not detectable in tissue from inflamed and enlarged adenoids in children, according to a report in the October issue of *Archives of Otolaryngology – Head & Neck Surgery*.

The overenlargement of the lymph glands located above the back of the mouth is known as adenoid hyperplasia. Adenoid hyperplasia is a cause of upper airway obstruction that is associated with neurocognitive and behavioral problems in <a href="mailto:children">children</a>, according to background information in the article. It has been hypothesized that adenoid hyperplasia may be caused by gastroesophageal reflux disease (GERD, the regurgitation and backing up of stomach contents into the esophagus) and laryngopharyngeal reflux (LPR, a condition similar to GERD, sometimes called "silent reflux").

Damian J. Hussey, Ph.D., and colleagues at Flinders Medical Centre and Flinders University, Adelaide, Australia, conducted a study to determine whether Helicobacter pylori (bacteria that cause ulcers and stomach inflammation) and/or other members of the Helicobacteraceae family are detected in hyperplastic adenoids of children, and to determine if false-positive detection of H pylori has been reported. They examined 93 adenoid biopsy specimens (78 hyperplastic and 15 normal) collected from children ages 2 to 10 years. LPR was suspected in 41 percent of the children on the basis of the Reflux Symptom Index.

"No evidence of H pylori was found in any adenoid sample," the authors



report. "Candidatus Wolinella africanus was the only Helicobacteraceae family member detected in one hyperplastic adenoid."

"Histologic examination identified very few bacterial organisms," they continue. "Previous polymerase chain reaction findings may be the result of false-positive H pylori detection."

The study results cast doubt over claims by other authors of detecting high colonization rates of H pylori in adenoid tissue.

"We believe that our findings show that adenoid tissue does not serve as a reservoir for species of the Helicobacteraceae family," the authors write. "This suggests that colonization of the tissue by these bacteria is not a factor contributing to adenoid hyperplasia."

"However, the detection of Candidatus W africanus in a hyperplastic adenoid sample indicates that gastric contents can reach the adenoid, so occasional reflux episodes may form part of the pathophysiologic characteristics of this disease," they conclude.

**More information:** Arch Otolaryngol Head Neck Surg. 2011;137[10]:998-1004.

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