



# Glue ear: Bacterial nasal spray may help children

Many children have long-term problems with fluid in the middle ear, and sometimes surgery is the only way to shift it. However, a bacterial nasal spray can have the same effect in some children, reveals a thesis from the Sahlgrenska Academy at the University of Gothenburg, Sweden.

The study covered 60 children with glue ear, or secretory otitis media (SOM), who were split into three groups. The first group received a solution containing *Streptococcus* bacteria, the second a solution with *Lactobacillus* bacteria, and the third a bacteria-free solution (placebo). These solutions were then sprayed into the children's noses for ten days.

'In the group given the *Streptococcus* spray, a third of the children got much better or were cured completely, while only one child given the bacteria-free spray recovered,' says Susann Skovbjerg, a doctoral student at the Department of Infectious Diseases and Clinical Bacteriology. 'Treatment with *Lactobacillus* bacteria was less effective.'

## Spray stimulates immune system?

A number of different types of bacteria come under the *Streptococcus* umbrella. The type used in the study is normally found in the mouth and belongs to the viridans group. The researchers have various theories as to why a spray with these bacteria can help children with glue ear.

'One explanation for the marked improvement may be that the spray stimulates the immune system to conquer the long-term inflammation,' says Skovbjerg.

Studies of bacterial sprays have been performed before, including in patients who have had a throat infection and children suffering from recurring acute ear infections, and now their effect has been studied in children with glue ear. The results of these studies have generally been good, but Skovbjerg says that more studies are needed to confirm the results and look at what actually happens in the children treated with the spray.

'In the longer term, bacterial sprays may come to be part of the treatment for glue ear,' she says. 'They could be used to help the body to heal itself and so perhaps enable some children to avoid an operation.'

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Source Sahlgrenska Academy, University of Gothenburg