

# *Differential Diagnosis of Adenoiditis, Sinusitis and Rhinopharyngitis*

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When I read the title of this chapter... I had a feeling that... where did this odd feeling come from? It comes from this word, rhinopharyngitis. And why does it sound so strange? Because it gives me the feeling or the impression of a word that was used quite often but is no longer being used, so much so that it is no longer mentioned in pediatrics and otorhinology reference books. My conclusion: rhinopharyngitis does not exist, which makes differential diagnosis much easier, as now I have only two possibilities instead of three. But why was it used so often and is no longer used today? Because rhinopharyngitis was considered to be the expression of common cold. It is now known that the common cold is not a rhinopharyngitis, but rather a rhinosinusitis. What happens? The rhinoviruses, the common cold causing agents, invade the nasal mucosa, produce a non-pyogenic inflammation on this mucosa, characterized by increased secretion and edema, thus leading to nasal obstruction and obstruction of the paranasal ostia, the opening of the paranasal cavities into the middle nasal meatus. In other words, the common cold is a rhinossinusitis, or more accurately an acute, non-purulent rhinossinusitis. What are the cold manifestations in common practice? Rhinorrhea, that is, nasal discharge, some cough and this cough appears mainly after going to bed, due to the retronasal discharge, a mild infectious state (there is almost no fever, or low fever only in the first two days) and the duration is short. That is, there is a spontaneous cure in up to a week. However, things do not always evolve so smoothly. In children, with some frequency, there is a bacterial infection and that non-purulent acute rhinossinusitis becomes a purulent acute rhinossinusitis. What is the clinical presentation of the purulent acute rhinossinusitis, better known by its shorter name, sinusitis? There are two presentations. The most common is what can be called prolonged cold. However, cold is not long-lasting by nature, it is cured in up to a week. Well then, what is the so-called prolonged cold? It is the cold that lasts longer, the one that lasts more than ten days with no tendency toward improvement. But what is it that is prolonged? Two things, either both or one of them: the rhinorrhea, that is, the thick nasal discharge, or cough, but this is now a diurnal cough that can become worse after going to bed, but what really characterizes this sinusitis, a prolonged cold, is an irritative cough during daytime. And the second type of sinusitis can be called severe cold. But we also saw that the cold does not present by its nature a severe infectious state. And in this case,

the infectious state will become more severe, with high fever after the third day of evolution, and presence of a nasal secretion that is purulent now. Instead of the watery, serous secretion, we now have a muco-purulent secretion. And what about the adenoid?

The adenoid is better known for its chronic expression, that is, adenoid hypertrophy that is clinically manifested by mouth breathing (the child that always breathes with the mouth open), and the loud nocturnal snoring, the snoring that can be even heard from another room. And what about the acute adenoiditis? Acute adenoiditis can occur concomitantly with tonsillitis and/or re-acutezation of a chronic hypertrophy process. There is fever and retronasal secretion in these cases, which can obviously also occur in sinusitis. Thus, there are not enough clinical informations about the case that was presented for a differential diagnosis between sinusitis and adenoiditis. In practice, however, this is not important, because it is well characterized that this is a cold with secondary bacterial infection. Is bacterial infection treated with antibiotic? Well, not always. It is not mandatory to use antibiotics in every bacterial infection and otitis is an excellent example, as many cases are cured without antibiotics. The child is 23 months old in the case that was presented to us. That is, younger than two years of age. Up to two years of age, the child has a higher risk of infection and it would be one more indication for the use of antibiotics. However, if the pediatrician is bold, brave and especially if he has an excellent relationship with the family, he can even wait a little, not using antibiotics immediately. A nasal lavage with hypertonic saline is performed and then the appropriate antibiotics will be used, if there is no improvement after 48 hours.

### **Recommended readings**

1. Schwartz B. Rinossinusite viral ou bacteriana. In: SIH T. Infectologia em Otorrinopediatria. Revinter, Rio de Janeiro, 2002:103.
2. Wald E. Sinusite bacteriana aguda. In: Sih T. Manual de Otorrinopediatria da IAPO, Lys Gráfica & Editora, Guarulhos, 2006:145.
3. Camargos PAM. Faringite, adenoidite e amigdalite. In: Torelli E. Doenças Infeciosas na Infância e Adolescência. Medisii, São Paulo, 2000:1566-1569.