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SPECIAL ARTICLE

Rhinosinusitis: evidence and experience. A summary☆

Rinossinusites: evidências e experiências. Um resumo

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Introduction

Rhinosinusitis (RS) is an inflammatory process of the nasal mucosa, and it is classified as acute (<12 weeks) or chronic (≥12 weeks) according to the time required for the evolution of signs and symptoms, and according to the severity of the condition, as Mild, Moderate or Severe. Disease severity is classified through the Visual Analog Scale (VAS) (Fig. 1), from 0 to 10 cm. The patient is asked to quantify from 0 to 10 the degree of discomfort caused by the symptoms; zero meaning no discomfort, and 10, the greatest discomfort. Severity is then classified as follows: Mild: 0–3 cm; moderate: >3–7 cm; Severe: >7–10 cm.[1]

Although VAS has only been validated for Chronic Rhinosinusitis (CRS) in adults, the European Position Paper on Rhinosinusitis and Nasal Polyps (EPOS) 2012[1] also recommends its use for Acute Rhinosinusitis (ARS). There are several specific questionnaires for rhinosinusitis; however, in practice, most have limited application, particularly in acute conditions.[2–4]

Acute rhinosinusitis

Definition

Acute rhinosinusitis (ARS) is an inflammatory process of the nasal mucosa of sudden onset, lasting up to 12 weeks. It can occur one or more times within a given period, but always with complete remission of signs and symptoms between episodes.

Classification

There are several classifications for rhinosinusitis. One of the most often used is the etiological classification, which is based primarily on symptom duration:[1]

- Viral or common cold ARS: a generally self-limited condition, in which symptom duration is less than ten days;
- Post-viral ARS: when there is worsening of symptoms five days after the onset of disease, or when symptoms persist for more than ten days;
- Acute bacterial rhinosinusitis (ABRS): small percentage of patients with post-viral ARS can develop ABRS.

The viral ARS or common cold has a symptom duration that is traditionally less than 10 days. When there is symptom worsening around the fifth day, or persistence beyond ten days (and less than 12 weeks), it could be classified as a post-viral RS. It is estimated that a small percentage of post-viral ARS develops into ABRS, around 0.5–2%.

Regardless of time of duration, the presence of at least three of the signs/symptoms below may suggest bacterial ARS:

- Nasal secretion (with unilateral predominance) and presence of pus in the nasal cavity;
- Intense local pain (with unilateral predominance);
- Fever >38 °C;
- Elevated erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) levels;
- ''Double worsening'': acute relapse or deterioration after the initial period of mild symptoms.

1cm|__|__|__|__|__|__|__|__|__|__|10cm

Figure 1 Visual Analog Scale (VAS).

Clinical diagnosis

Signs and symptoms

At the level of primary health care and for epidemiological purposes, ARS can be diagnosed based on symptoms alone, without detailed otorhinolaryngological examination and/or imaging studies. In these cases, the distinction between types of ARS is mainly by means of medical history and physical examination performed by medical generalists and specialists, either otorhinolaryngologists or not. It is worth mentioning that, at the time of the medical assessment, patients may fail to report ''worsening'' if not asked specifically. The history of a duration of symptoms lasting a few days followed by a relapse is frequent. It is up to the assistant physician to recognize that, and in most cases, it could represent the evolution of the same disease, from a viral ARS to a post-viral one, rather than two distinct infections. Subjective evaluation of patients with ARS and its diagnosis are based on the presence of two or more of the following cardinal symptoms:[1]

- Nasal obstruction/congestion;
- Anterior or posterior nasal discharge/rhinorrhea (most often, but not always, purulent);
- Facial pain/pressure/headache;
- Olfactory disorder.

In addition to the above symptoms, odynophagia, dysphonia, cough, ear fullness and pressure and systemic symptoms such as asthenia, malaise and fever may also occur. The few studies on the frequency of these symptoms in ARS in the community have shown great variability.[5–7] The possibility of ABRS is greater in the presence of three or more of the following signs and symptoms:[1]

- Nasal secretion/presence of pus in the nasal cavity with unilateral predominance;
- Local pain with unilateral predominance;
- Fever >38 °C;
- Symptom worsening/deterioration after the initial disease period;
- Elevated erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) levels.

ARS symptoms have a characteristically sudden onset, without a recent history of rhinosinusitis symptoms. In the acute exacerbation of chronic rhinosinusitis (CRS), diagnostic criteria and treatments similar to those used for ARS should be used.[1] Cough, although considered an important symptom according to most international guidelines, is not one of the cardinal symptoms in this document. In the pediatric population, however, cough is identified as one of the four cardinal symptoms, rather than olfactory disorders.[1,8]