Tonsillitis

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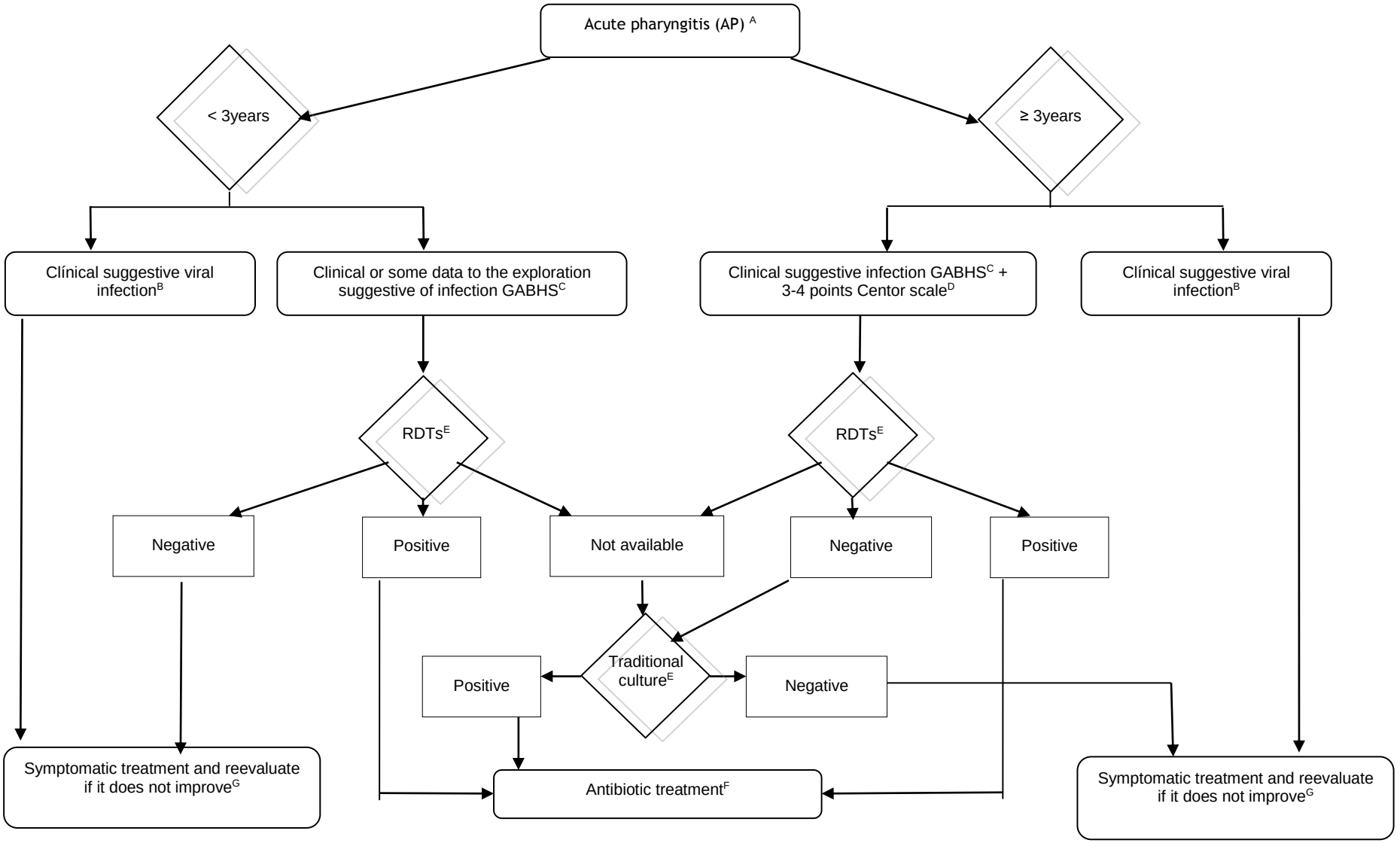
Acute pharyngitis (AP) A
< 3years
≥ 3years
Clínical suggestive viral infection B
Clinical or some data to the exploration suggestive of infection GABHS C
Clinical suggestive infection GABHS C + 3-4 points Centor scale D
Clínical suggestive viral infection B
RDTs E
RDTs E
Negative
Positive
Not available
Negative
Positive
Traditional culture E
Positive
Negative
Symptomatic treatment and reevaluate if it does not improve G
Antibiotic treatment F
Symptomatic treatment and reevaluate if it does not improve G

Tonsillitis

A.- Definition: Inflammatory process of the mucosa and structures of the pharyngo-tonsillar area, usually of infectious origin, which may present with erythema, edema, exudate, ulcer or vesicles[1,2]. The etiology depends on the age, season, and geographical area, but the most frequent is viral. Pharyngotonsillitis due to GABHS is very rare in children under 18 months, and represents 5-10% of AP in children between 2 and 3 years, 3-7% in children under 2 years[2] and 30% in children between 4 and 18 years old.

B.- Associated symptoms: rhinorrhea, thrush, conjunctivitis, cough, diarrhea, aphonia, exanthemas, generalized lymphadenopathy and hepatosplenomegaly[3,4].

C.- Streptococcal origin is suggestive of sudden onset of symptoms, high fever, odynophagia, pharyngeal exudate, anterior cervicolateral lymphadenopathy, enamel on palate and uvula, scarlet rash and headache[3,4]. In children under 3 years of age it is difficult to differentiate, based on clinical symptoms, between viral and streptococcal etiology. In this age group, streptococcal etiology should be suspected when clinical signs such as petechial enantema on palate, uvula edema, afrabose tongue or scarlet rash, abdominal pain, nausea and vomiting are present and there is confirmation of a cohabiting with confirmed streptococcal pharyngotonsillitis. Although the existence of petechiae on the palate is suggestive of AP due to GABHS, it is not defining because they have also been described in rubella and in infections caused by herpes simplex and Epstein-Barr virus[2].

D.- Centor's Criteria[5]

CRITERIA	score
Temperature > 38ºC	1
Absence of cough	1
Tonsillar exudate	1
Anterior protruding and painful laterocervical adenopathies	1

E.- Additional tests:
To decide on a treatment, the etiological diagnosis is required[1,3,4,6-9]. There are two tests for the detection of GABHS: rapid detection of streptococcal antigen (RDTs) and pharyngo-tonsillar sample culture. Neither one definitively differentiates patients with true streptococcal AP of those who have a viral infection and are carriers of GABHS. This limitation may result in mistakenly identifying treatment failure or recurrent tonsillitis.

The RDTs are based on the acid or enzymatic extraction of the cell wall polysaccharides of the GABHS. Their main advantage is the immediate result. RDTs have a high specificity, close to 95%, and a sensitivity that can vary between 70-95% [10.11]. The sample is taken scraping the surface of both tonsils and the posterior pillars of the pharynx with a swab. Avoid touching other areas of the oropharynx or mouth so that the germ inoculum does not dilute. The RDTs are specific for GABHS, and will not detect groups C and G (present only in 5% of children and not responsible for rheumatic fever).

F.- Antibiotic treatment of choice[1,3,9,12]

- Penicillin V: <12 years or <27 kg: 250mg / 12h 10 days
  >12 years or >27 kg: 500mg / 12h 10 days
  - Potassium phenoxymethylpenicillin. Penilevel® 250 mg envelopes
  - Phenoxymethylpenicillin benzathine. Benoral® suspension 50,000 IU/ml, (<27kg 8mL every 12h, > 27kg 16mL every 12h.)
- Penicillin G Benzathine: <12 years or <27 kg: 600.000 UI, single dose
  >12 years or >27 kg: 1.200.000 UI, single dose
- Amoxicillin: 50mg /kg/day, every 12-24 hours, 10 days, with a maximum dose of 500mg /12h or 1g/24h.

Treatment for those allergic to Penicillin:

- Not mediated by IgE:
  - Cefadroxil: 30mg/kg/day, every 12h, 10 days (maximum 1g per day) (suspension 250 mg/5ml, 500mg tablets)
- Mediated by IgE:
  - Josamycin: 30-50 mg/kg/day, every 12h, 10 days (maximum 1g/day)
  - Azithromycin: 20mg/kg /day, once a day, 3 days (maximum 500mg/day)
  - Clindamycin: 20-30mg/kg /day, every 8-12h, 10 days (maximum 900mg/day).

Most children show clinical improvement in the first 48 hours of treatment and the contagiousness disappears after 24 h of treatment[2].
Amoxicillin -clavulanic is not the first-line treatment for streptococcal FFA, since GABHS is not a producer of beta-lactamase, and it is a broad-spectrum antibiotic that could lead to the selection of resistant strains of other bacteria present in the nasopharyngeal flora.

G.-If the clinical picture is prolonged, investigate mononuclear syndrome (Epstein Barr). In repeating AP with persistently negative cultures, a diagnosis of PFAPA (periodic fever, aphtous stomatitis, pharyngitis and adenopathy) syndrome should be considered.

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