

Streptococcal Throat Infection Increasing Rates!!

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Group A strep bacteria is responsible for various illnesses, with different presentations and severity, some of them are mild as sore throat and fever or skin infection as Impetigo, moderate cases can be as scarlet fever, but others are invasive, which means that germs invade other parts of the body. When this happens, disease is usually very severe and needs a special care in the hospital and even can be lethal in some cases. Necrotizing fasciitis and streptococcal toxic shock syndrome are examples of iGAS (invasive group A streptococcal infection).

How can we get the infection?

Group A strep bacteria are very contagious, transmittable to others through:

- Respiratory droplets, that can spread while talking, coughing or sneezing.
- Direct contact, by touching the infected skin lesions (impetigo).

The incubation period is usually 2 - 5 days.

Many countries have reported an increase in group A streptococcus infections in recent months, and in some cases, scarlet fever. children under ten have been the most affected age group.

Why is this increase?

Some explanations are there: The unusually high rate of influenza, respiratory syncytial virus and COVID-19 may alter the balance of immune cells and bacterial flora in the body, so they enable Strep A bacteria to colonise places they usually don't.

WHO said: "the observed increase may reflect an early start to the GAS infection season coinciding with an increase in the circulation of respiratory viruses and possible viral coinfection which may increase the risk of invasive GAS disease. This is in the context of increased population mixing following a period of reduced circulation of GAS during the COVID-19 pandemic".

Another explanation is that, the decreased exposure to strep A infections during the COVID-19 pandemic, slowed the natural immunity levels in paediatrics, resulting in a big number of susceptible people.

Warning signs

Strep throat can cause fever and sore throat as any other bacteria and viruses, but some signs are warning, like nausea or vomiting, or fine skin rash (sandpaper), Scarlet fever is usually a mild illness and most children recover from it with no complications, if they receive proper treatment with antibiotics.

Invasive infections often start with non-specific symptoms, as fever, tiredness, loss of appetite, but can rapidly progress to severe illness as necrotising fasciitis and streptococcal toxic shock syndrome, parents or carers should seek medical advice if the child gets some of these symptoms: severe muscle pain, localised muscle tenderness, redness at the site of a wound, a rapid heart rate, or rapid breathing.

Diagnosis

Clinically

- Pharyngeal and tonsillar erythema
- Tonsillar hypertrophy with or without exudates
- Palatal petechiae
- Anterior cervical lymphadenopathy.

Laboratory

A rapid antigen detection test (RADT) or throat culture to confirm group A strep pharyngitis. RADTs have high specificity but varying sensitivities. Throat culture is the gold standard diagnostic test.

Management

The use of antibiotics to treat group A strep pharyngitis:

- Shortens the duration of symptoms and fastens the recovery.
- Reduces the transmission to the contacts.
- Prevents the development of complications.

If left untreated, the symptoms of group A strep pharyngitis are usually self-limited, but complications may occur in the form of acute rheumatic fever or suppurative complications (e.g. peritonsillar abscess, mastoiditis).

Penicillin or amoxicillin is the antibiotic of choice for group A strep pharyngitis. For patients with a penicillin allergy, recommended regimens include cephalosporins, clindamycin, azithromycin, and clarithromycin, however resistance to azithromycin and clarithromycin is common.

Complications

Suppurative
Bacteremia
Cervical lymphadenitis
Endocarditis
Mastoiditis
Meningitis
Otitis media
Peritonsillar/retropharyngeal abscess
Pneumonia
Nonsuppurative
Poststreptococcal glomerulonephritis
Rheumatic fever

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