

## CASE REPORT ON SCARLET FEVER – A GROUP A STAPHYLOCOCCAL INFECTION

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### ABSTRACT

Scarlet fever is a bacterial illness that mainly affects children. It causes a distinctive pink-red rash. Cases present with a distinctive macropapular rash, usually in children. This article aims to increase awareness of scarlet fever by highlighting key symptoms and mode of prevention. In patients who have the typical symptoms, a prescription of a suitable antibiotic such as Azithromycin should be made immediately to reduce the risk of complications and the spread of infection.

**KEYWORDS:** Scarlet fever.

### INTRODUCTION

Scarlet fever or 'scarlatina' is the name given to a disease caused by an infective Group A Streptococcal (GAS) bacteria. It usually presents as exudative pharyngitis with a spreading maculo-papular rash originating from the trunk.<sup>[1]</sup>

Scarlet fever is mainly a clinical diagnosis made through the history and examination. Scarlet fever usually follows a sore throat or a skin infection, such as impetigo, caused by particular strains of streptococcus bacteria.

Initial symptoms usually include a sore throat, headache and a high temperature (38.3C/101F or above), flushed cheeks and a swollen tongue.

A day or two later the characteristic pinkish rash appears. It usually occurs on the chest and stomach before spreading to other areas of the body, such as the ears and neck.

The symptoms of scarlet fever usually develop two to five days after infection, although the incubation period (the period between exposure to the infection and symptoms appearing) can be as short as one day or as long as seven days.

The rash feels like sandpaper to touch and it may be itchy. On darker skin the rash may be more difficult to see although its rough texture should be apparent.

Scarlet fever is very contagious and can be caught by:

- Breathing in bacteria in airborne droplets from an infected person's coughs and sneezes
- Touching the skin of a person with a streptococcal skin infection, such as impetigo
- Sharing contaminated towels, baths, clothes or bed linen

It can also be caught from carriers – people who have the bacteria in their throat or on their skin but don't have any symptoms.

### **CASE STUDY**

*A 21 kg 9 year old male child visited the Pediatric OP of the tertiary care centre in Trivandrum with complaints of fever since 3 days, sore throat, strawberry tongue and rashes all over the body. On examination the child was found to have pharyngitis and sand paper rashes in trunk. His lab values showed a mild elevation in Total count and Neutrophils. He was treated with Syp.Azithromycin, Syp.Paracetamol, Syp.Fexofenadine and Calamine Lotion for 5 days.*

*On review after 5 days the rashes faded and his symptoms subsided and he required no further treatment.*

### **DISCUSSION**

The early treatment of scarlet fever is important, both to rectify symptoms and to prevent further spread of infection. The incidence of scarlet fever among males is typically higher than females. Surges in scarlet fever incidence have been repeatedly reported during the winter and summer months.<sup>[2]</sup> Reports of macrolide resistance are increasing due to trends in overprescribing, which leads to an increased selection pressure for pathogenic bacteria as the drug has a long half-life and a broad spectral antibacterial action. Thus, it is important to correctly diagnose to avoid the incorrect prescription of macrolides for suspected bacterial infections when the causative agent is of viral origin.<sup>[3]</sup> It is important for patients to be informed to complete the prescribed course and contact their clinician if they have any

concerns to minimise likelihood of antibiotic resistance. Although scarlet fever can affect any age, due to its preponderance in children aged between 3 and 8 years, it is important to be extra vigilant when reviewing children in this age group.

### **Preventing Infection: Wash Those Hands**

There is no vaccine to prevent scarlet fever. The best way to keep from getting or spreading the bacteria that cause scarlet fever is to:

- Wash your hands often, especially after coughing or sneezing and before preparing foods or eating
- Wash glasses, utensils, and plates after someone who is sick uses them
- Stay home from work, school, or daycare until you no longer have a fever and have taken antibiotics for at least 24 hours

It is especially important for anyone with a sore throat to wash his or her hands often.<sup>[4]</sup>

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