

## Strep by Me

August 16, 2018

There was the Christmas morning I woke up early with that all too familiar fiery, knife-stabbing pain in the back of my throat.

Joseph A. Zenel, MD, Editor-in-Chief, Pediatrics in Review

**Content License:** FreeView

**Article type:** [Pediatrics in Review Blog](#)

---



Similar to hearing a song that triggers reflections on events long past in one's life, reading [this month's review article on Group A \*Streptococcus\*\(GAS\) by Drs. Dietrich and Steele](#) prompted memories of my own episodes with this determined bacterium.

There was the Christmas morning I woke up early with that all too familiar fiery, knife-stabbing pain in the back of my throat. I had many a diagnosed strep throat already in my childhood, and on this morning, the anticipated unwrapping of presents held no interest as I developed a fever, muscle aches, and a worsening sore throat. I skipped breakfast and went to bed, dreading the following morning when I knew for certain I would be taken to the doctor's office to be gagged by a throat swab, quickly followed by a very painful, leg-numbing injection into my rear end. As I lay there in bed, my sister entered my bedroom, placed her new Led Zeppelin record album on my hi-fi, and pressed the "play" and "repeat" buttons. As the opening chords began, I drifted into a fitful sleep while the record played over and over again. To this day when I hear "Stairway to Heaven," feelings of nostalgia and misery come to mind. And as expected the following day, I limped out of the doctor's office after a throat-gagging swab that was quickly followed by a very painful, leg-numbing injection into my rear end.

There was the one summer evening as a teenager when I significantly scraped the lateral side of my right foot while playing basketball in my bare feet. Two days later, after my parents saw me limping, I had to admit to them I had scraped my right foot and that the scrape was oozing a clear yellow fluid. My mother was embarrassed to bring me to the doctor on a Sunday evening for what could be a trivial reason, but she was worried. To her surprise, the doctor was excited by the red streak extending up the dorsal surface of my right foot. No throat swab, but I did limp out of the office again, for two reasons that time: my foot infection and the very painful, leg-numbing injection into my rear end. (Yes, this infection could have been due to staph, but the yellow ooze and the quick recovery after the penicillin injection makes me think this was GAS.)

There was the Friday evening in the acute care clinic where I, as an intern, encountered a mother who brought her son because he had a sore throat, and she needed to have a doctor cure her son by rubbing a

stick in her son's throat. Examination revealed a febrile, ill-appearing boy with bright red tonsils covered by purulent patches. As I swabbed the son's throat for a culture, the mother exclaimed, "That's it, that's what I want you to do. Such a great doctor, he'll be better now!" I believe the subsequently prescribed amoxicillin helped even more.

Later that same week, an anxious adolescent patient with a fever, a newly discovered heart murmur, and an acute right wrist arthritis was admitted to the floor. He was the first patient I cared for who turned out to have acute rheumatic fever. I still remember his presentation, his fear, and his disease. I am happy that I have not seen a new case of acute rheumatic fever for the past two decades.

During my first year in medical school, I was diagnosed with essential hypertension, which was well controlled with medication. However, at the start of my third year of residency, my blood pressure started to climb, necessitating a visit to the doctor. Though I had no apparent hematuria, urinalysis revealed red blood cell casts. Later, ASO and anti-DNAse B titers confirmed post-streptococcal glomerulonephritis. Visions of dialysis and kidney transplantation haunted me immediately, but as Drs. Dietrich and Steele remark in their review article, my glomerulonephritis resolved without further complications.

Early in my academic career, there was the time at a continuing medical education conference that I presented a case of a child with streptococcal toxic shock who I had cared for. In the question and answer period that followed, an attendee asked me about PANDAS. I knew very little about this recently proposed entity and did not know how to answer the question. Fortunately for me, another speaker participating in the Q&A session was an infectious disease expert who came to my rescue. GAS had spooked me again. Since then, as Dr. Dietrich and Steele point out, the evidence for PANDAS has increased.

For me, GAS has been a lifetime companion. It has personally affected me and a number of my patients. It has posed questions throughout the years that continually intrigue me. What really causes acute rheumatic fever? Why does GAS have antigens that our immune system can confuse with our own cellular antigens? Why does antibiotic therapy prevent acute rheumatic fever but not post-streptococcal glomerulonephritis? If PANDAS exists, how is it our brain shares the same antigens with GAS? Why, in this day of rising antibiotic resistance, is GAS, which can cause acute rheumatic fever, post-streptococcal glomerulonephritis, and possibly PANDAS, still sensitive to penicillin?

Drs. Dietrich's and Steele's article "Group A Streptococcus" reads like a captivating cookbook listing ingredient after ingredient in a recipe for a pathogen with many flavors. As I read about each type of GAS infection, I imagine placing a checkmark on the list – "Yep," "Been there," "Seen that...". I hope the long-awaited GAS vaccine, mentioned in the article, does come to pass so I will be unable to check "Acute Necrotizing Fasciitis" off my list.

I started this blog commenting on how a song sometimes triggers a past memory and how Drs. Dietrich's and Steele's article did the same. In the spirit of a Led Zeppelin song eliciting pharyngeal discomfort, I end this blog with images of Ben E. King singing an altered version of his hit song "Stand by Me:"

When the fever come

And the throat is sore

And the rash is the brightest red to see

No I won't be afraid, no I won't be afraid

Just as long as you treat, strep by me

So doctor, doctor, strep by me, ow strep by me

Ow strep, strep by me, strep by me

- [Group B Streptococcal Infections](#)
- [Case 1: Abscess in a 9-year-old Boy](#)
- [Group A Streptococcal Infections](#)
- [Facebook](#)

Copyright © 2018 American Academy of Pediatrics