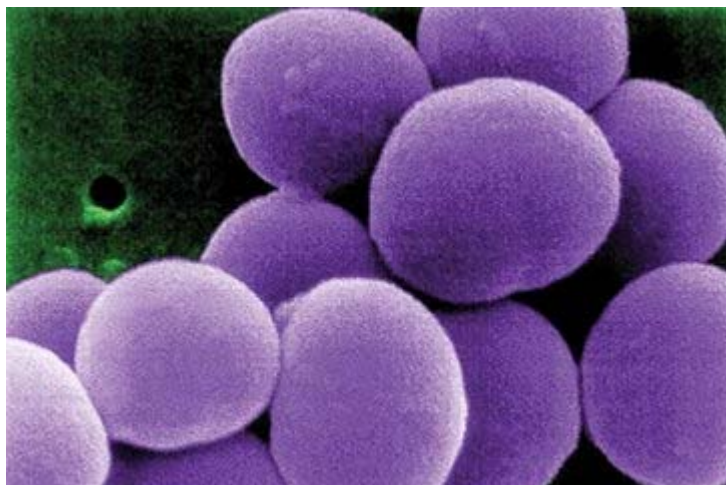


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Boils of Summer

Something under the skin

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It had a golden crust edged with highlights of a light green cream cheese frosting. I was talking with Christopher Cobb. Chris, his father and other friends were enjoying an early evening supper at a relatively quiet Galatoire's. The sodden Friday lunch crowd had mostly tottered home, the sun was still shining and the evening dinner crowd had not yet arrived. With the Cobb family food is a center-stage topic, and I think the others at table first thought Chris was describing some culinary delight.

"It was a gooey, crusty thing with shades of dark yellow and light green," said Chris, a Tulane University sophomore. He was telling me about an oozing sore about the size of a quarter that had erupted on his chin recently. "My skin has been itching and I just started allergy shots. I think my chin infection started with a scratch, but by the time I saw a doctor three or four days later it was oozing pus. She took a culture and gave me an antibiotic ointment. She called me the next week with shocking news – MRSA."

He continued. "The thing had almost completely healed so she told me to just keep applying the ointment. What exactly is MRSA?" It didn't take the others at table long to leave us to our own conversation. Like most physicians, I'm pretty good at ducking medical related questions outside the office, but Chris' innocent charm broke that rule.

Chris pronounced MRSA as mer-sa. I still refer to it by its initials M-R-S-A, an acronym for methicillin-resistant Staphylococcus aureus, a strain of a common bacterium resistant to many drugs including all of those in the penicillin family. The methicillin in MRSA refers to a now-obsolete antibiotic once used to treat infections resistant to old-line penicillin.

The human skin is normally colonized with a number of bacteria. Most folks who harbor Staphylococcus aureus, commonly called plain old "staph," never have any signs or symptoms of an infection. If these germs gain a foothold under the skin whether from trauma or irritation around a hair shaft, a painful boil can develop over the next four to 10 days. Other folks,

like Chris, develop a localized area with small pus filled blisters that is technically impetigo. If a pus collection develops around an eyelash it's called a sty. A nasty nest of interconnecting abscesses with multiple drainage points is termed a carbuncle.

The pus in a boil is composed of bacteria and dead white blood cells, a graveyard of the body's foot soldiers that die in battle with bacterial invaders. If all works well, these accumulated white blood cells and other products of bacterial warfare help contain the infection to the skin and soft tissues, producing a painful boil in the process. If the body defenses fail, a bloodstream invasion of the bacteria can spell havoc, including death.

"I think I had a spider bite" is a concern physicians in the primary care trenches in the South, including New Orleans, hear on a daily basis when patients appear with localized skin infections. These are like UFO sightings in reverse. A boil is there but nobody saw the spider.

Slandering the good name of these small, shy creature stems from overblown press accounts of brown recluse spider bites coupled with the relatively spontaneous nature of a sudden boil. The spider, like the butler, is usually innocent.

All these resistance concerns aren't all that important for the individual patient, as simple drainage of the abscess is usually sufficient to cure the infection, even without antibiotics. Still, proper antibiotics seem to speed healing and reduce discomfort, and most physicians do reach for their prescription pads when confronted with staphylococcal abscesses.

In years past, Keflex was often the initial drug of choice for any skin and soft-tissue infection. Keflex is now at the back of the shelf, an antibiotic of historical interest only due to MRSA resistance. When an antibiotic is needed, most MRSA infections are easily treated with other readily available oral antibiotics that aren't chemical relatives of penicillin.

Pediatricians lean towards the sulfa drug Bactrim. Clindamycin and doxycycline are other often-useful antibiotics for staphylococcal infections. Sometimes physicians prescribe dual therapy with the antituberculosis drug Rifampin, but I find this is rarely needed. Working with Dr. William Mogabgab at Tulane years ago in large clinical trials, I became very familiar with minocycline, a lesser-known synthetic tetracycline. Minocycline is more lipid soluble than its cousin doxycycline, meaning it's more likely to penetrate sites of active infection containing pus.

For very serious MRSA infections, such as those involving the heart and the bloodstream, intravenous therapy with other antibiotics is essential. The oldest is vancomycin, still a good workhorse. Many persons who have skin and soft tissue infections that could easily be treated with oral antibiotics receive very expensive injections or courses of intravenous antibiotics for less than optimal reasons including clinician inexperience, financial connections to an infusion services and even patient insistence. Any kind of infusion through a vein has its own set of adverse effects, and I rarely recommend such therapy.



Isaiah instructs the stricken King Hezekiah.

Boils from antiquity to today

For years I have told patients that the story of Job in the Bible was the first published case history of a person with boils. My go-to Biblical scholar and public health doctorate friend Dr. Sally Knight has set me straight. “King Hezekiah came before Job,” emailed Knight. “I believe the first mention of boils in the Bible is in Exodus. The fifth plague was pestilence, i.e., the death of all the Egyptian’s cattle and other livestock. The sixth was boils.”

The fast-spreading boils contracted after the mass death of cattle in Exodus is epidemiologically more akin to cutaneous anthrax. And the long-lasting nature of Job’s skin ulcers with bone pains defines yaws, a cousin to syphilis and an ancient skin disease that lasts for years untreated. On the other hand King Hezekiah’s malady was the classic description of a staphylococcal abscess with pain and fever.

Application of a plaster of squashed figs initiated drainage and a prompt cure. For eons not much changed from King Hezekiah’s day except for the composition of the “drawing plasters” and better techniques for abscess drainage.

“When I was a little girl, my best friend had one boil after another. Her mother used to put that black Ichthammol drawing salve on them. We didn’t quite get ‘ichthammol’ and called it ‘black ickyol.’ I remember its smell,” said Knight.

Like Knight, I also remember a playmate with boils. I was visiting my grandparents in Marianna, Fla., one summer in the 1950s. One day my summer girlfriend Sue Ann Sexton could not come out and climb trees and play kick the can. My grandmother told her mother about another neighbor down the block who was good at squeezing boils, a special trait among Southerners that still exists today.

The first real antibiotic useful in treating staphylococcal infections was penicillin, which became available in the 1940s with the first report of resistance in '47. As resistance to penicillin spread, the FDA approved vancomycin in '58 and methicillin in '59. The race was on as resistance to methicillin quickly followed, and the first MRSA strain was isolated in '61. For 20 years these infections almost all occurred in hospitals, but community-acquired outbreaks began cropping up in the '80s.

The first serious community-acquired MRSA infection I remember was a Saints football player. This was before there were effective restrictions against the use of anabolic steroids, and I suspected this index case for me was related to a less than sterile self-administered injection. Today, most boils are caused by MRSA, but fortunately most are self-limited and easily treated.