

Nuggets of Knowledge: Rose Thorn Disease[©]

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DISEASE PREVENTION IN PROPAGATION (PERSONNEL)

We all agree propagators should be concerned with the health of their plants in all stages of propagation and production. We know that the three points on the disease triangle are: Susceptible host, virulent pathogen, and favorable conditions.

We have the most control over the presence (ideally the absence) of pathogens and the actual conditions for our crops, striving always to prevent conditions favorable to harmful organisms. We talk a lot about sanitation and plant health in propagation.

Today I want to share, from personal experience, a story about the health and vigor of a certain propagator (me), and how a “plant-based” disease caused no little consternation for over 4 years until it was properly diagnosed and treated.

MY VERY OWN DISEASE TRIANGLE

- 1) Susceptible host = Me
- 2) Favorable conditions = Compromised immune system (recently discovered, 5 years ago, gluten intolerance, now resolved).
- 3) Virulent pathogen = “Rose Thorn Disease” = Sporotrichosis, a fungal disease which causal organism is called *Sporothrix schenckii*.

Causes of Sporotrichosis

Sporotrichosis usually begins when mold spores are forced under the skin by a rose thorn or sharp stick. The infection can also begin in apparently unbroken skin after contact with hay or moss carrying the mold. Farmers, nursery workers, landscapers, and gardeners are at higher risk for the disease. More rarely, cats or armadillos can transmit the disease. In very rare cases, the organism can be inhaled or ingested, leading to infection of parts of the body other than the skin. The disease does not appear to be transmitted from person to person.

Symptoms of Sporotrichosis

Some symptoms of sporotrichosis and characteristics of the infection include:

- Once the mold spores move into the skin, the disease takes days-to-months to develop.
- The first symptom is a firm bump (nodule) on the skin that can range in color from pink to nearly purple (Fig. 1). The nodule is usually painless or only mildly tender.
- Over time, the nodule may develop an open sore (ulcer) that may drain clear fluid. Untreated, the nodule and the ulcer become chronic and may remain unchanged for years.
- In about 60% of cases, the mold spreads along the lymph nodes.
- Over time, new nodules and ulcers spread in a line up the infected arm or leg. These can also last for years. In very rare cases, the infection can spread to other parts of the body.
- The disease can infect the bones, joints, lungs, and brain.
- Such spreading usually occurs only in people with a weakened immune system. These infections can be life threatening and are difficult to treat.



Fig. 1. Rash that developed on author's hands as a result of sporotrichosis.

Treatment of Sporotrichosis

If you have any weird, persistent rash, or any of the symptoms described above, see your doctor. Consult a dermatologist. Tell your doctors that you are a horticulturist and that you work with sharp objects, sphagnum or peat moss, soils, thorny plants, etc.

The therapy prescribed in my case was an oral antifungal called itraconazole. This drug was effective; the symptoms are gone and the disease is no longer in my skin. There may be side effects to be aware of. This is not to be construed as my recommendation to use a drug, rather a report on my case of rose thorn disease.

Prevention of Sporotrichosis

There is no vaccine to prevent sporotrichosis. You can reduce your risk of sporotrichosis by wearing protective clothing such as gloves and long sleeves when handling wires, rose bushes, bales of hay, pine seedlings, or other materials that may cause minor cuts or punctures in the skin. It is also advisable to avoid skin contact with sphagnum moss.

SUMMARY

Watch out for plant diseases on your plants ... and in your body too.