

Tinea nigra

Background: Tinea nigra is an uncommon superficial dermatomycosis caused by *Phaeoannellomyces werneckii* (formerly classified as *Exophiala werneckii* and *Cladosporium werneckii*).

The infection appears as a hyperpigmented macule, which usually occurs on the **palms**. The **soles** and, more rarely, other areas of the body can also be affected.



Ecology

- *P. werneckii* is found in the tropics and subtropics of several continents.
- The organism has been found in soil, sand, and some fish.



Incubation period • Typically, the incubation period is 2-7 weeks, although in experimental inoculation, the incubation period was 20 years.



- The fungus exhibits lipophilic adhesion to human skin; it is exclusively found in the **stratum corneum** and does not extend into the **stratum lucidum**.

Anatomy & Pathology



- **Anatomy:** A superficial infection of the top layers of the cornified layer.
- **Pathology:** Fungal elements can usually be seen in the cornified layer.
- Occasionally, hyperkeratosis may be seen, but there is usually little evidence of inflammation.

Tinea nigra palmaris

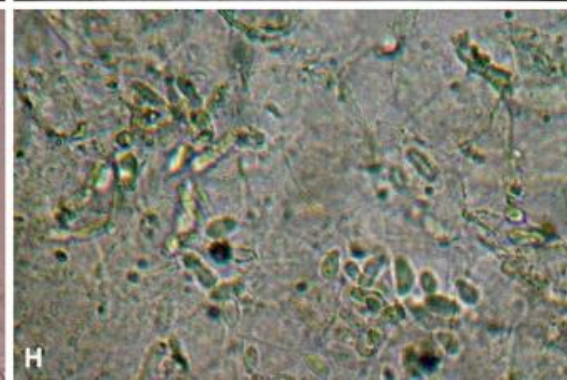
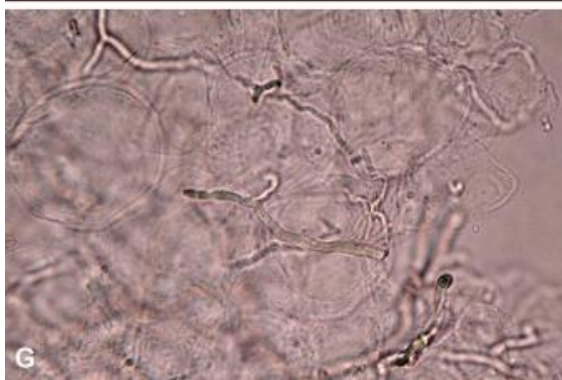


Tinea Nigra Clinical Picture

- **What:** Light to dark brown macules are typical, and slight scale might be present. Lesions spread centrifugally. The disease is almost always asymptomatic.
- **Where:** It classically occurs on the palms of the hands, but can present on the feet or other parts of the body.
- **Who:** More common among those living in the tropics or subtropics. No other identified risk factor.

- *Tinea nigra of the palm.*
- The palm is the most common site of tinea nigra.











SFS

Pathogenesis

- *P. werneckii* receives nourishment from its utilization of decomposed lipids. Its tolerance to an environment with a high salt concentration and a low pH allows the fungus to thrive in human skin.
- A pigmentary change in the skin results in a dark-colored macule due to the accumulation of a melaninlike substance in the fungus.

Pathophysiology

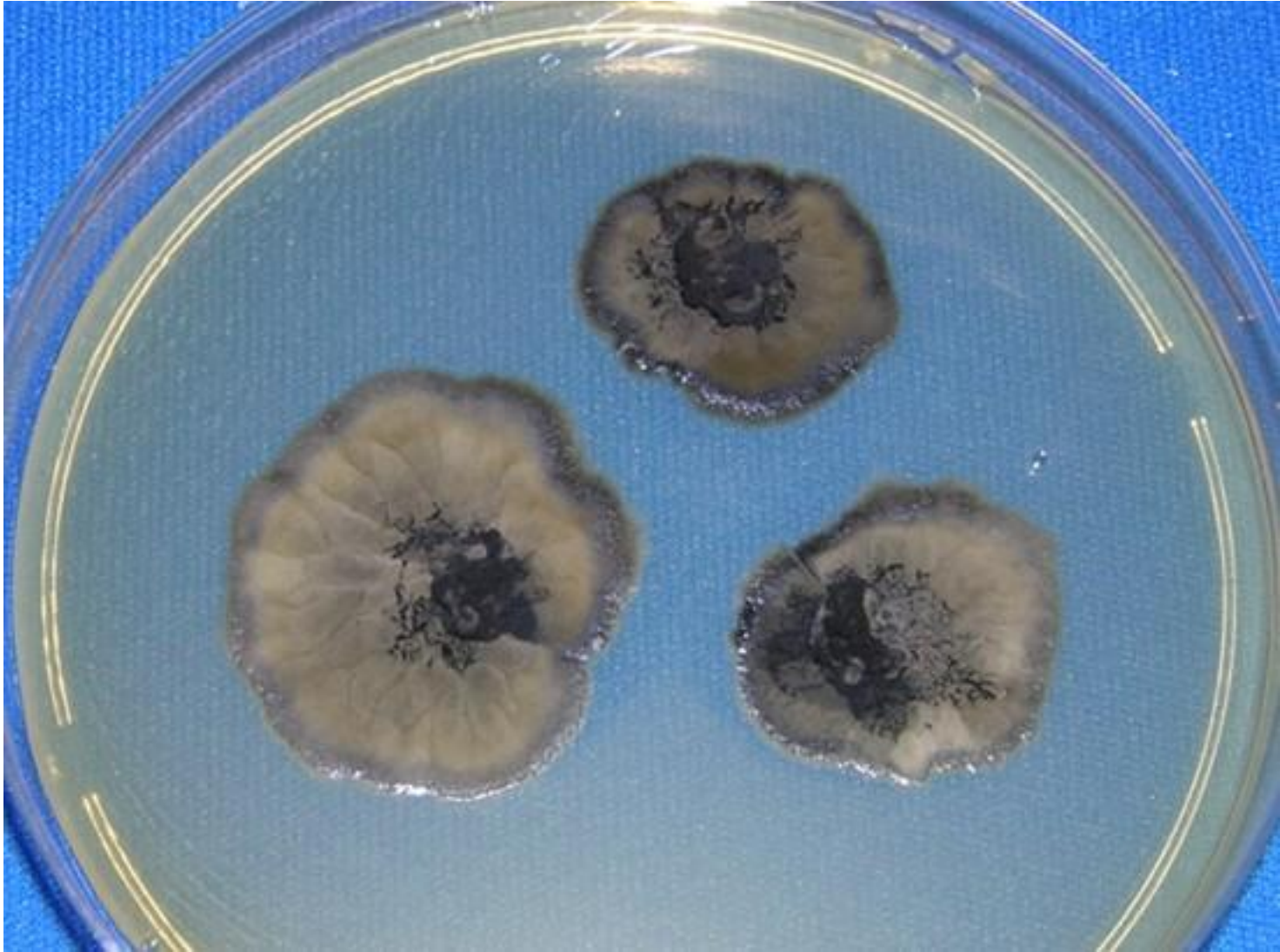
Tinea nigra is a superficial mycosis of the stratum corneum.

Infection is believed to occur as a result of inoculation from a contamination source such as soil, sewage, wood, or compost subsequent to trauma in the affected area.

Diagnosis

- **The Diagnosis:** KOH prep must be performed.
- **The Differential:** Malignant melanoma, lentigo, junctional nevi, pigmentation from Addison's disease, stains from dyes or chemicals.

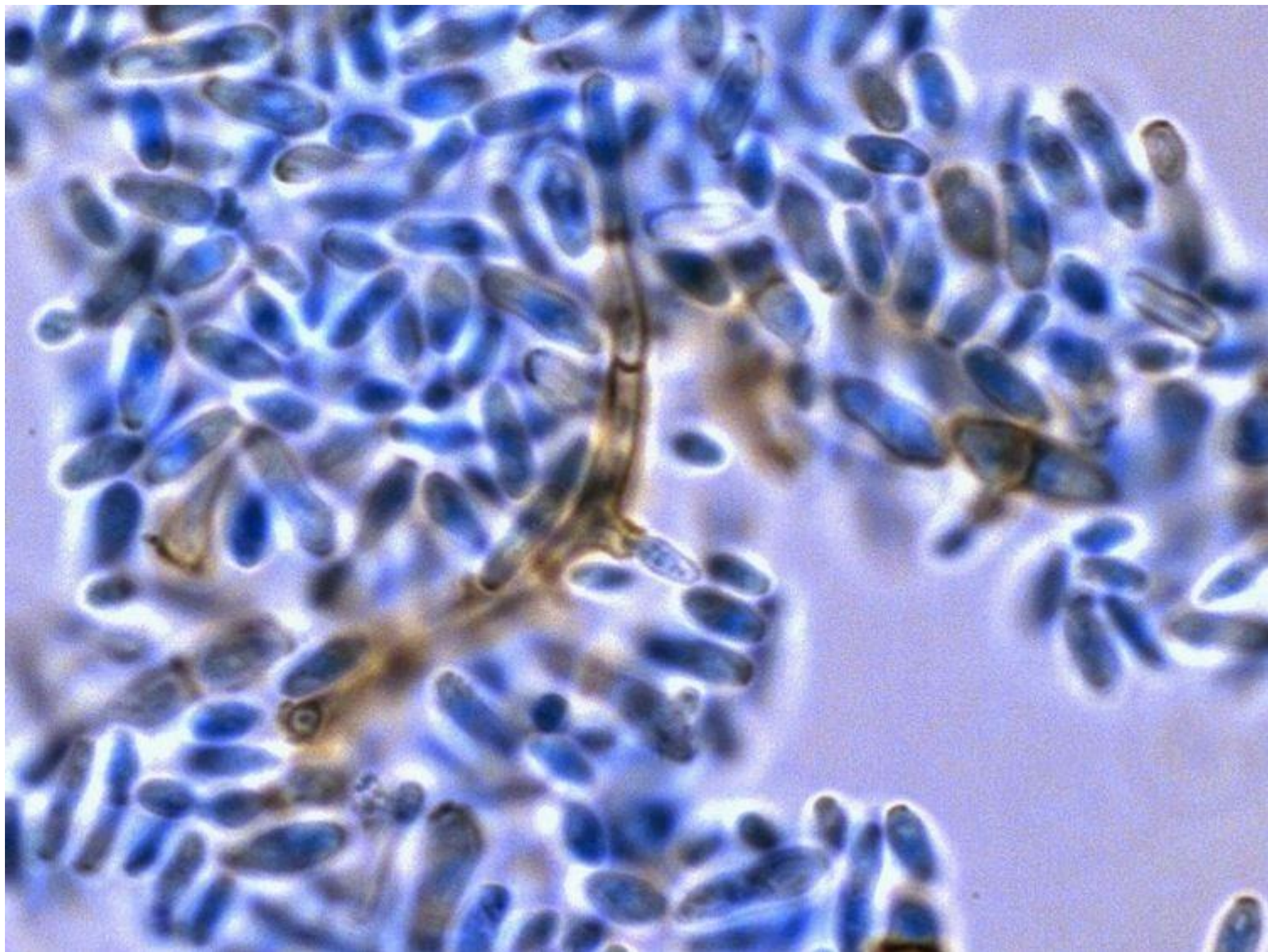
In culture, a pigmented colony will form.

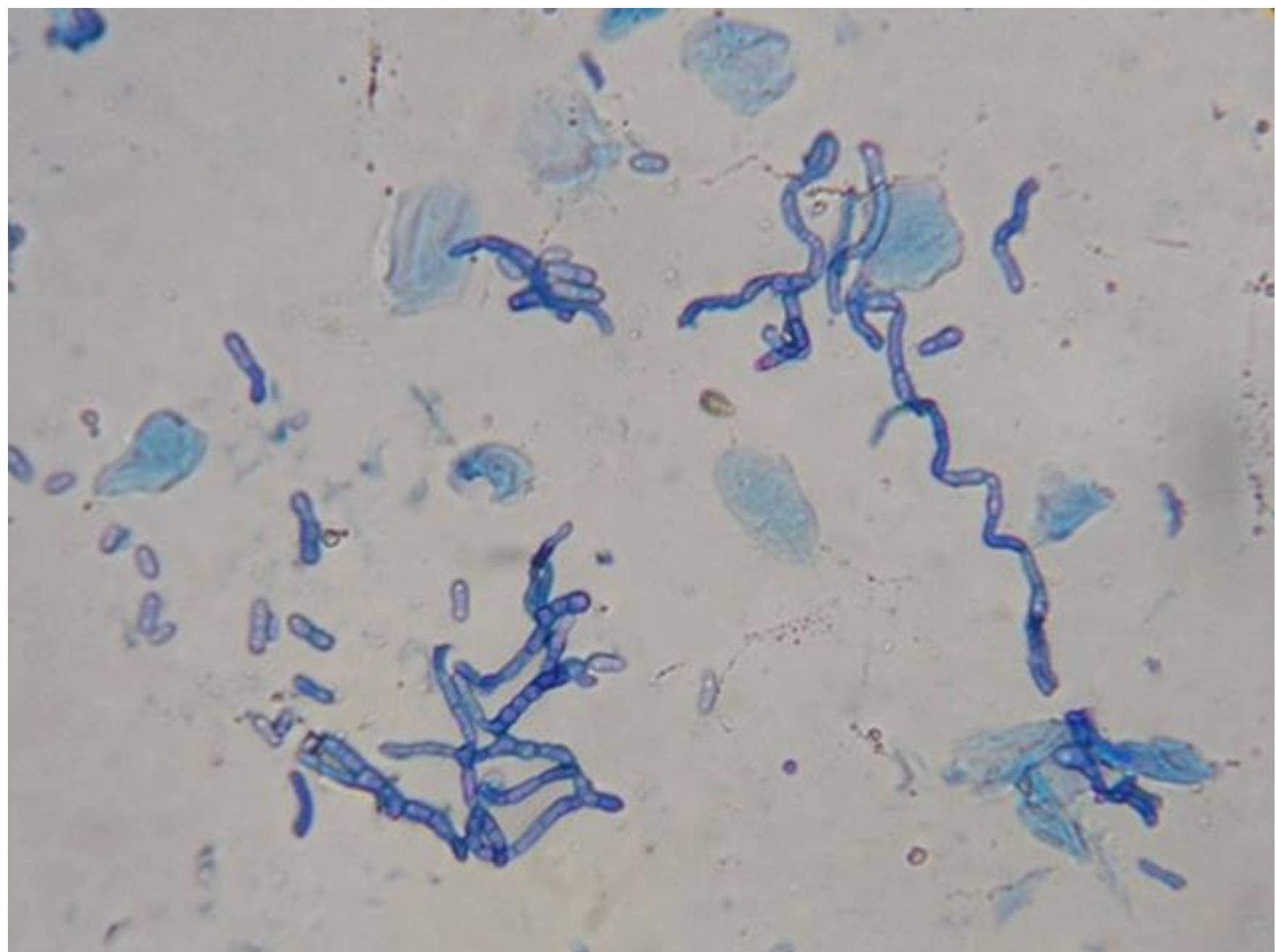


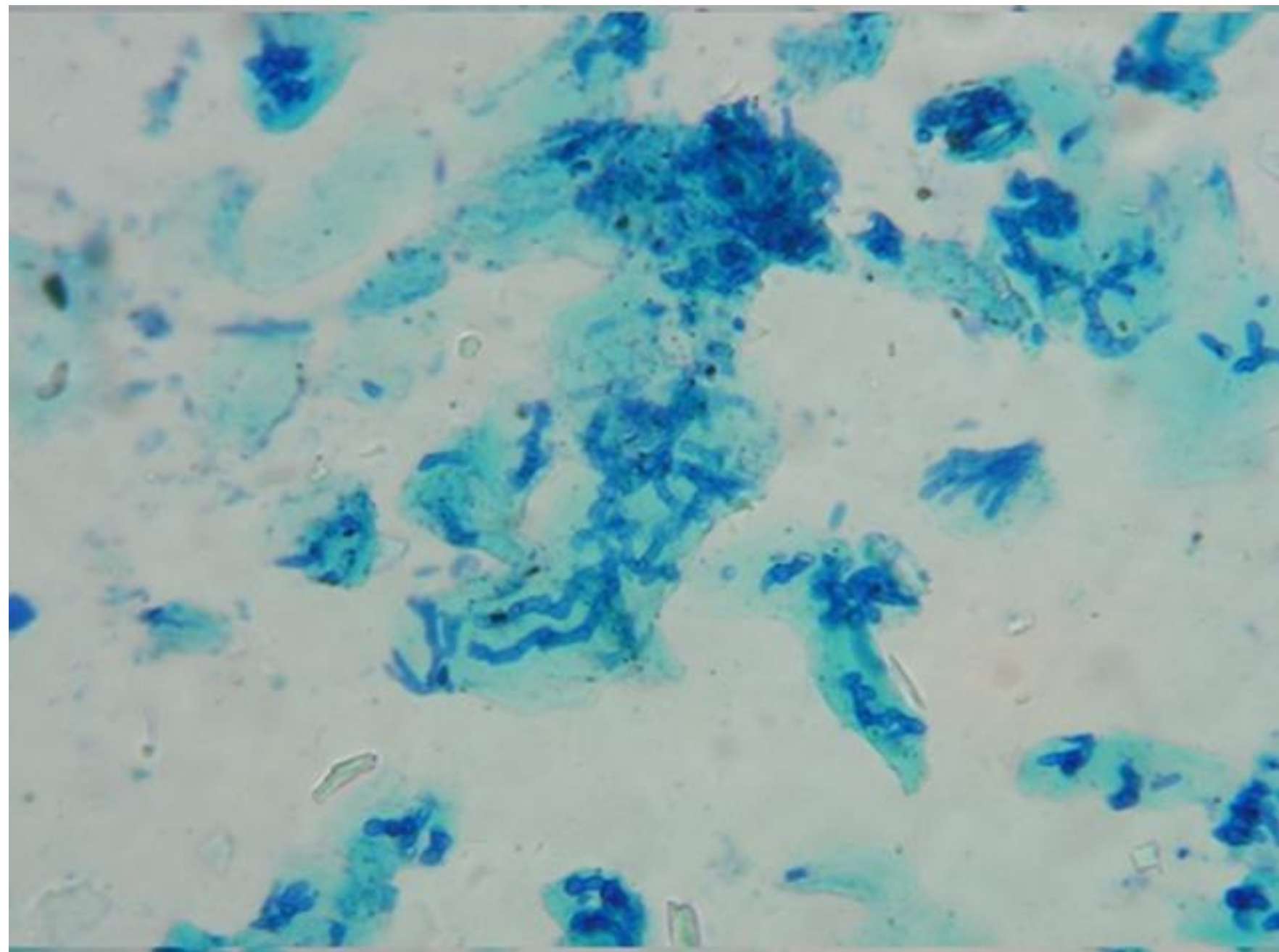


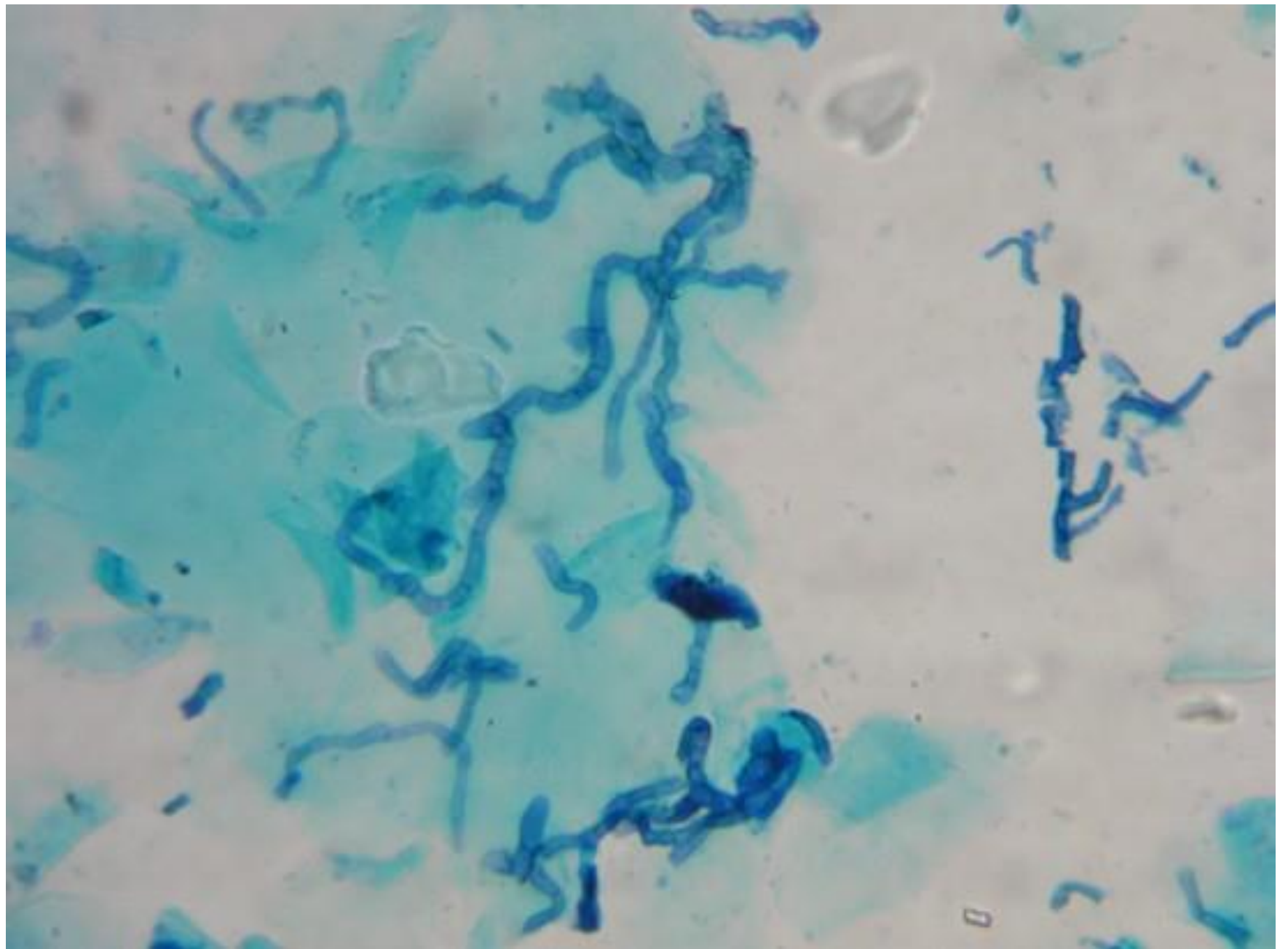


Morphology: Pigmented (brown or olive) branched, septate hyphae with budding cells are seen in KOH prep.



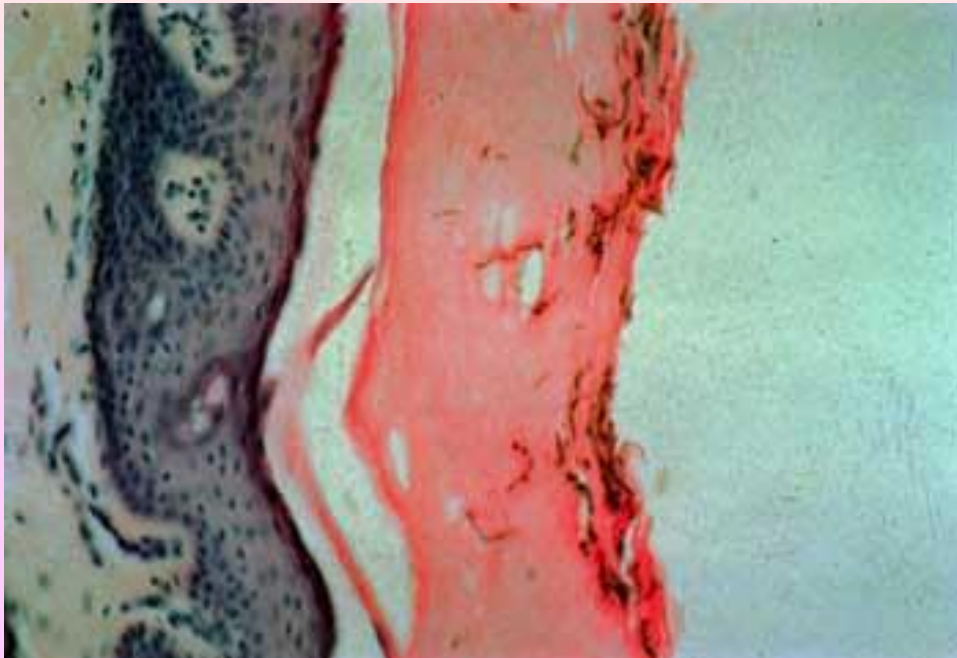






Pathology

- The pigmented elements of *P. Werneckii* are seen in the superficial layers of the stratum corneum in this H&E stain.



Tinea Nigra Treatment

Popular Recommendations:

- Topical azole cream
or
Whitefield's ointment
or
Topical thiabendazole
- Any topical antifungal is likely to be effective if used bid for 2-3 weeks.
- Griseofulvin is *not* effective.



تشخيص افتراقی: لیکن پلان