



## Clinical Images: Cercarial Dermatitis

### ABSTRACT

Cercarial dermatitis (swimmers' itch) consists of urticarial papules that form when the larvae of avian parasitic flatworms penetrate the skin. Cercarial dermatitis is common in the summer months where heaviest recreational swimming occurs, and when the temperature is ideal for amplified schistosome development.

**KEYWORDS:** cercarial dermatitis (swimmers' itch), non-communicable, water-borne disease



A previously healthy 3 year-old girl presented with a bilateral pruritic papular eruption on the lower extremities (Figure 1) that occurred 1 week after swimming in coastal waters adjacent to a local beach. Her older sister had a similar eruption which was milder in intensity and duration. The papules lasted for approximately 2 weeks and residual hyperpigmentation faded away after 6-8 weeks. A diagnosis of cercarial dermatitis was made.

Cercarial dermatitis (or swimmers' itch) is a self-limited, non-communicable water-borne disease, which is usually caused by penetration of the skin by larvae of avian parasitic flatworms (schistosomes). Free-swimming cercariae larvae are released from various snail species, and penetrate into the skin

### Cercarial dermatitis



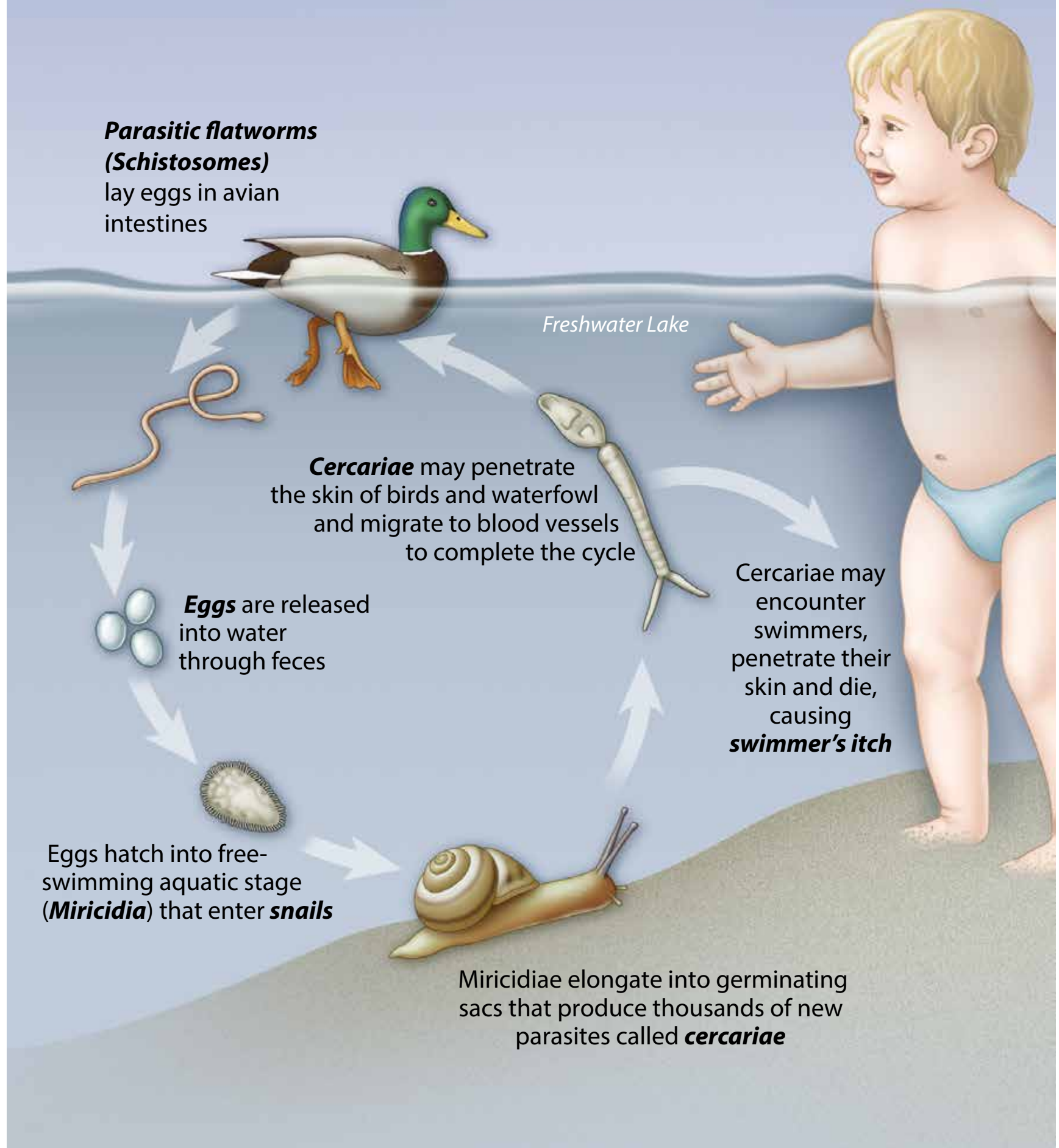
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# The Life Cycle of Cercaria (Swimmer's Itch)



of compatible definitive hosts (usually birds and waterfowl), where they develop into adult flukes and produce eggs.<sup>1</sup> Cercarial dermatitis occurs when cercariae accidentally penetrate human skin. Human skin

in fresh water land lakes, but can also found in salt waters. Cercarial dermatitis is most common in the summer months where heaviest recreational swimming occurs, and when the temperature is ideal for amplified schistosome development. It often affects children, who spend more time in shallow, warmer waters.<sup>1,2</sup>

Treatment is symptomatic and can include calamine lotion, antihistamines, and mild topical corticosteroids. Scratching should be avoided if possible to prevent secondary bacterial infection.

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## References

1. Horák P, Skírnisson K. Cercarial Dermatitis, a Neglected Allergic Disease INTERMEDIATE HOST. 2013;63–74.
2. Horák P, Mikeš L, Lichtenbergová L, et al. Avian Schistosomes and Outbreaks of Cercarial Dermatitis. 2015;28(1):165–90.

is unsuitable for avian schistosomes, and the parasite dies within the skin.<sup>2</sup> Primary infections usually present with an initial tingling sensation on exposed areas, followed by formation of pruritic macules and/or papules within 12-24 hours (up to 8 days). Repeated infections cause a more pronounced skin reaction. The papules usually regress leaving hyperpigmented macules over 4-10 days (up to 20 days).<sup>1</sup>

Cercariae are most commonly found just below the water surface



## CLINICAL PEARLS

Cercarial dermatitis usually occurs with exposure to fresh water, but can occur with shallow salt water exposure as well.

The eruption typically occurs on uncovered skin 12-24 hours (up to 8 days) after exposure.

The eruption is self-limited, lasting 4-10 days (up to 20 days).

