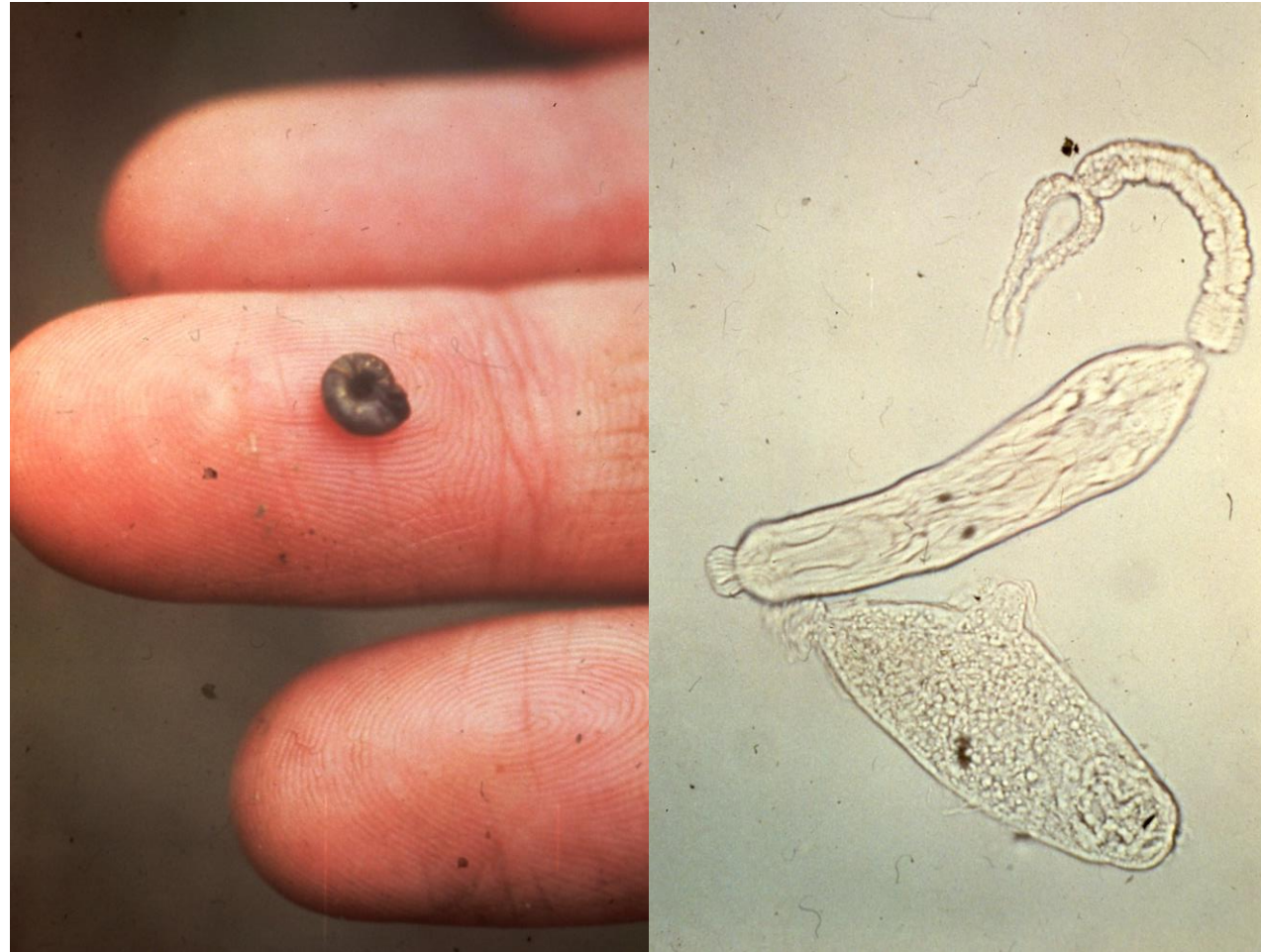


# Cercarial dermatitis

Cercarial dermatitis (swimmer's itch), a self-limited, non-contagious itchy rash on the skin of legs, is caused by infestation of avian (or rodent) blood fluke (schistosome) found in fresh water (lake or pond water) or less frequently salt water (ocean water). Snails infected with the schistosome shed the infective cercariae into the water. Swimming in water or rice-planting in paddy fields provokes infestation. The cercariae penetrate the wet skin, and allergic reactions cause rash (pruritic macular erythematous eruption with or without blister formation) at the site of cercaria entry. The parasites cannot survive in the human skin, so that the rash usually gets better after a few days. Individuals with a previous exposure to the organism develop more severe signs and symptoms as allergic responses. In other words, humans in contact with contaminated water serve as incidental and dead-end hosts. Biopsy rarely identifies the organism.



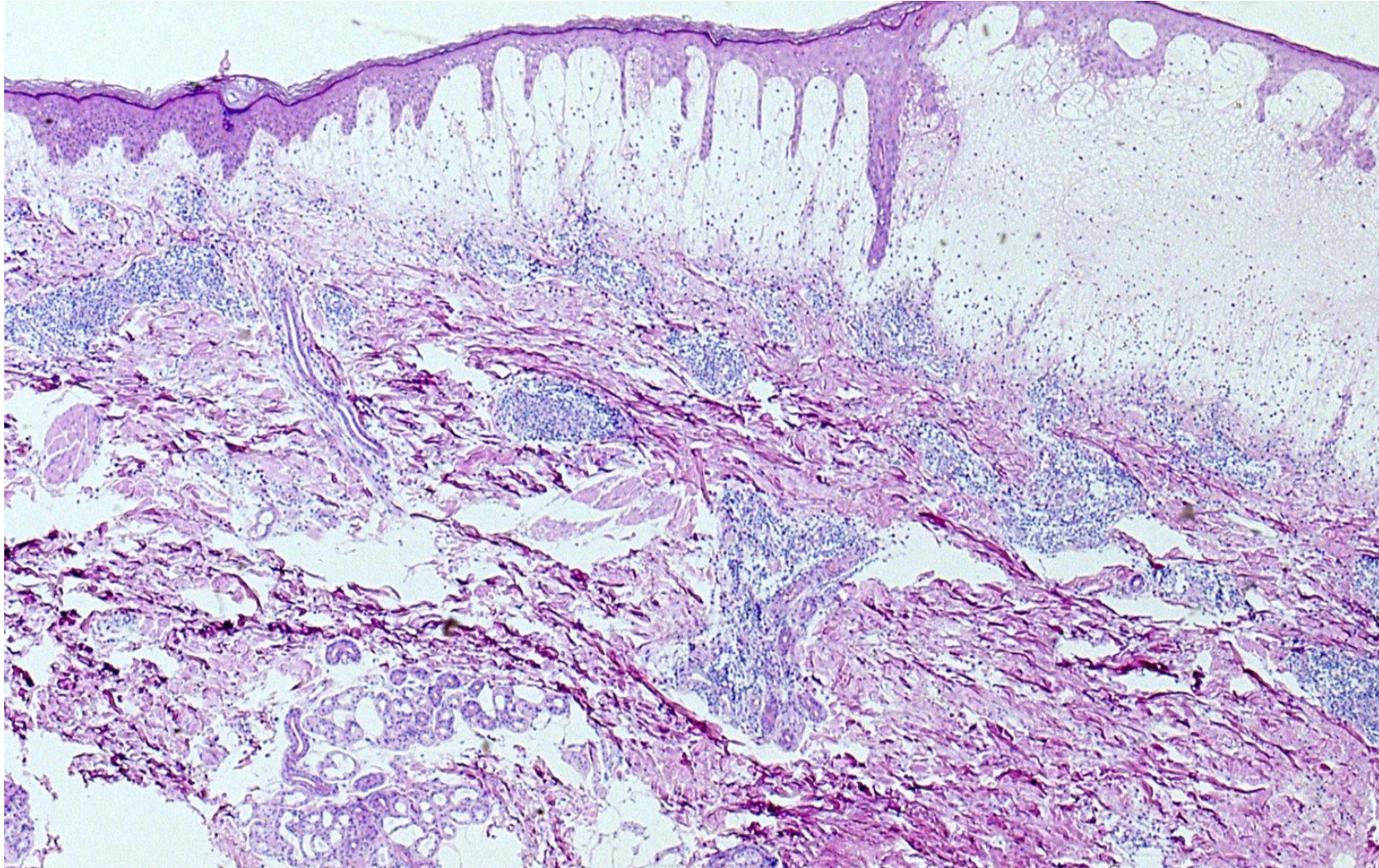
Cercarial dermatitis. Itchy rash is clustered around the ankle. In Japan, the disease is strongly linked to rice-planting, and is common in the season of rice-planting around April to May. The ankle, located at the water surface level, is susceptible to infestation.



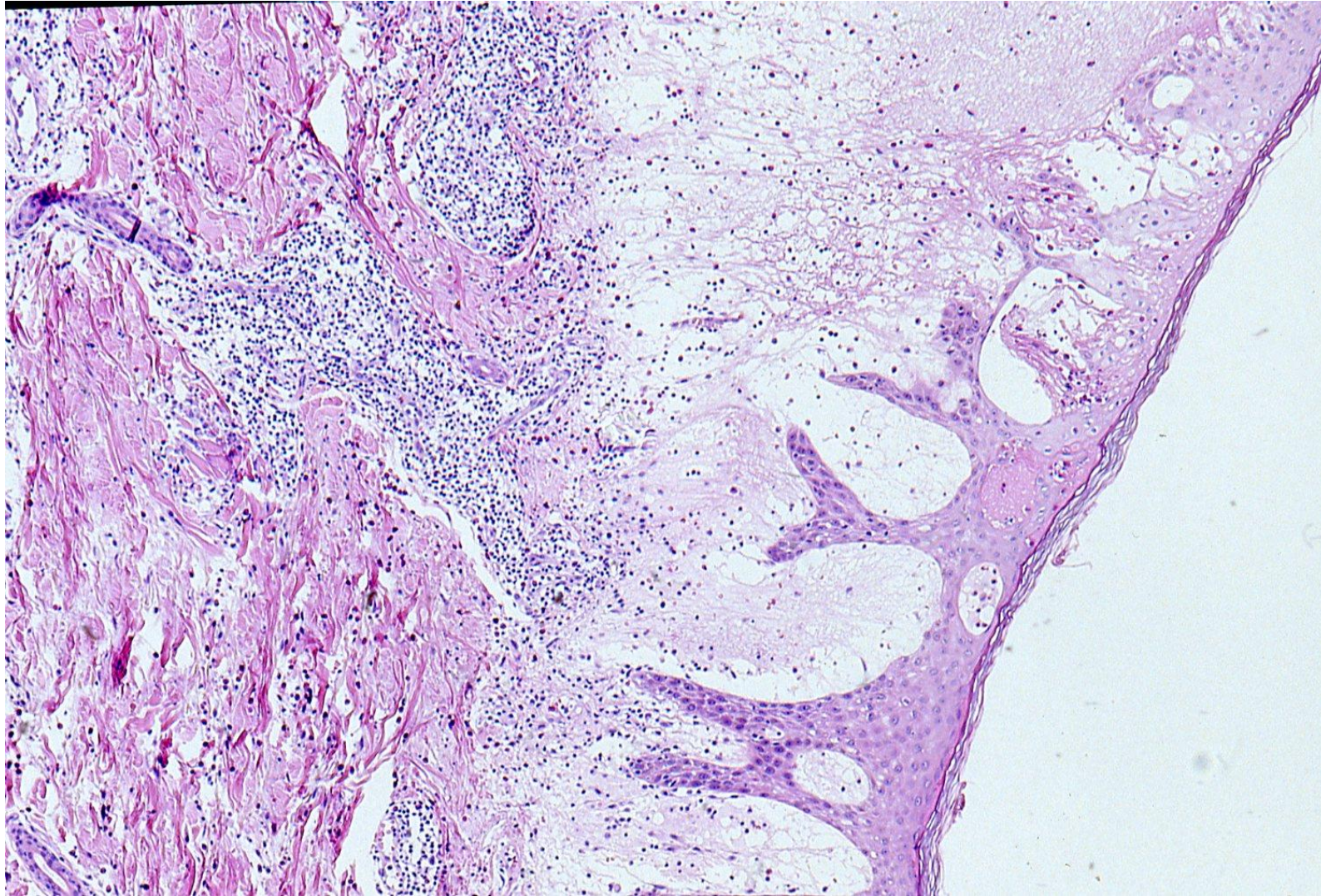
A small-sized snail, *Planorbidae* (left), is the intermediate host to mediate cercarial release into the water. A cercaria of *Gigantobilharzia sturniae* (a schistosome of small bird, white-cheeked starling) was obtained from the snail



Another Japanese case of cercarial dermatitis reveals hemorrhagic vesicle formation on both legs. He planted rice every year for 6 years. Strong allergic reactions against fluke Ag are indicated.



Biopsy from the hemorrhagic vesicle on the ankle (cercarial dermatitis) reveals marked subepithelial bulla formation. No cercaria was identified in the lesion. H&E-1



Biopsy from the hemorrhagic vesicle on the ankle (cercarial dermatitis) reveals marked subepithelial bulla formation. Lymphocytic reaction is mildly associated with eosinophils. H&E-2