



Clustered Papular Urticaria in a Patient with Clonorchiasis Undergoing Praziquantel Treatment

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A previously healthy 24-year-old man presented with several days of progressive fatigue. He reported consuming raw *Ctenopharyngodon idella* (grass carp) approximately one month prior to symptom onset. Two companions sharing the same meal were subsequently diagnosed with *Clonorchis sinensis* infection. He had no fever, abdominal pain, jaundice, or diarrhea. The initial physical examination was unremarkable. Laboratory investigations showed significant eosinophilia ($11.19 \times 10^9/L$; reference range, $0.02\text{--}0.52 \times 10^9/L$) and elevated alanine aminotransferase (269 U/L; reference range, 9–50 U/L). Stool microscopy confirmed *C. sinensis* eggs, prompting the initiation of standard-dose praziquantel (25 mg/kg three times daily). Within hours of the first dose, the patient developed a low-grade fever (peak 38.2 °C), which resolved spontaneously within 24 h. Three hours after the fourth dose, he developed acute urticaria on the left elbow and scattered vesicles on both lower extremities, accompanied by pruritus (Figure 1A). Over the subsequent hour, the urticaria resolved, but vesicular eruption progressed to involve the trunk and extremities, evolving into pruritic erythematous papules and fluid-filled vesicles in a clustered distribution (Figure 1B). Management with a single 10 mg dose of loratadine resulted in complete resolution of all skin lesions within 24 h (Figure 1C). This reaction was consistent with an immune-mediated hypersensitivity response to parasite antigens released during praziquantel-induced trematocidal activity. Persistent eosinophilia ($19.36 \times 10^9/L$) was noted the next day, but the alanine aminotransferase level trended down to 150 U/L. By the 4-week follow-up, eosinophil counts and alanine aminotransferase levels had normalized.

Clonorchiasis, caused by the liver fluke *C. sinensis*, remains a common yet neglected foodborne parasitic disease in China due to the habit of eating raw fish. An estimated 15 million people are infected, and the WHO has classified this parasite as a Group 1 carcinogen because of its link to cholangiocarcinoma [1,2]. Early diagnosis and curative treatment are therefore crucial. Fecal egg examination is the traditional diagnostic standard for individuals with a history of raw fish consumption. However, conventional microscopy relies on manual screening, a process that is labor-intensive and whose sensitivity depends heavily on the experience of the technician. Recently, artificial intelligence-assisted multi-layer scanning of fecal samples has enhanced egg detection, thus improving the diagnostic rate [3].

Praziquantel is the first-line treatment, but it can rapidly disrupt the worm's tegument, releasing a large antigen load that may provoke a distinct acute cutaneous allergic reaction. The laboratory hallmark of this immune-mediated response is severe peripheral eosinophilia [4,5]. Prompt antihistamine treatment quickly relieves symptoms, allowing uninterrupted praziquantel therapy. This underscores the necessity of completing the full praziquantel course for parasite clearance, as antihistamines merely control allergic symptoms without substituting for antiparasitic therapy. Clinicians must recognize this treatment-related reaction to avoid misdiagnosis and unnecessary drug discontinuation. In endemic regions, sustained public education on the risks of raw fish consumption remains vital for prevention [6].





Figure 1. Evolution of papular urticaria in a patient with clonorchiasis. (A) Urticarial plaque on the left elbow and early vesicles on the lower extremities (3 h after the fourth dose of praziquantel); (B) Progressive eruption: clustered pruritic papules and vesicles on the trunk and extremities; (C) Complete resolution 24 h after a single dose of loratadine.

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Conflicts of Interest

The author declares no conflict of interest.

Use of AI and AI-Assisted Technologies

No AI tools were utilized for this paper.

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