

[LETTERS TO THE EDITOR]

Infection of *Helicobacter cinaedi* Should Be Treated for an Adequate Duration with Combined Antibiotic Therapy: Author's Reply

Key words: *Helicobacter cinaedi*, antibiotic susceptibility, treatment duration, virulence factors

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The Authors Reply We would like to thank Fukuchi et al. for their interest in our recent publication in *Internal Medicine* regarding the case of a patient with rheumatoid arthritis and malignant lymphoma who developed *Helicobacter cinaedi* bacteremia (1). They pointed out three important clinical issues related to *H. cinaedi* infection: antibiotic susceptibility, duration of treatment, and virulence factors.

As they mentioned, it is well known that *H. cinaedi* is resistant to both macrolides and conventional fluoroquinolones (ciprofloxacin, levofloxacin, moxifloxacin, etc.) in Japan. Our patient was treated with garenoxacin twice in the course of her illness but did not show a clinical response (2). Drug sensitivity testing at our hospital revealed that this pathogen was sensitive to aminobenzyl penicillin but resistant to levofloxacin, clarithromycin, and erythromycin. Although the minimal inhibitory concentration of garenoxacin was not investigated, we strongly suspected that this pathogen was resistant to garenoxacin because of the poor clinical response.

The appropriate antibiotic therapy and duration of treatment required for *H. cinaedi* bacteremia have not been established, but prolonged therapy (2-6 weeks) has been reported to be more effective than short-term therapy (<10 days) (3). Our patient received intravenous aminobenzyl penicillin 8 g/day for 6 weeks and remains clinically well without recurrence of infection 2 years later. Her clinical course suggests that penicillin administered intravenously for an adequate duration is effective for treating *H. cinaedi* bacteremia.

Fukuchi et al. wonder why our patient with malignant lymphoma tolerated repeated cytotoxic chemotherapies. One explanation may be the relatively low virulence of *H. cinaedi*. Our understanding the natural history of untreated *H. cinaedi* bacteremia has been hindered by a lack of available data and references. Patients with severe *H. cinaedi* bacteremia can develop infectious aortic aneurysm (4), whereas moderate cases may show only a low- to high-grade fever with or without skin manifestations (5). The factors that account for the different clinical manifestations and variable severity of this infection are unknown. Further studies are needed to clarify the characteristics of this pathogen.

The authors state that they have no Conflict of Interest (COI).

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References

1. Fukuchi T, Sugawara H. Infection of *Helicobacter cinaedi* should be treated for an adequate duration with combined antibiotic therapy. *Intern Med* **58**: 2589, 2019.
2. Fujita S, Hayashi H, Kodama S, et al. Bacteremia possibly caused by *Helicobacter cinaedi* and associated with painful erythema in rheumatoid arthritis with malignant lymphoma. *Intern Med* **57**: 3663-3666, 2018.
3. Kiehlbauch JA, Tauxe RV, Baker CN, Wachsmuth IK. *Helicobacter cinaedi*-associated bacteremia and cellulitis in immunocompromised patients. *Ann Intern Med* **121**: 90-93, 1994.
4. Kushimoto K, Yonekura R, Umesue M, et al. Infected thoracic aortic aneurysm caused by *Helicobacter cinaedi*. *Ann Vasc Dis* **10**: 139-142, 2017.
5. Araoka H, Baba M, Okada C, et al. Risk factors for recurrent *Helicobacter cinaedi* bacteremia and the efficacy of selective digestive decontamination with kanamycin to prevent recurrence. *Clin Infect Dis* **67**: 573-578, 2018.

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