Fidaxomicin “Chaser” Regimen Following Vancomycin for Patients With Multiple Clostridium difficile Recurrences

To the Editor—Fidaxomicin has been shown to be effective for treating patients with primary Clostridium difficile infection (CDI) and patients with a first recurrence of CDI [1]. Treatment of patients with multiple CDI recurrences may be more challenging and require other strategies. We hypothesized that using fidaxomicin in a post-vancomycin “chaser” strategy might be effective in breaking the cycle of multiple CDI recurrences. Vancomycin is predictably effective in clearing both the organism and its toxins in the stool of patients following treatment for 1 week or less [2]. Despite efficacy of vancomycin against the vegetative state of C. difficile, recurrences after treatment completion are common, presumably due to germination of residual spores. We previously showed that a 2-week course of rifaximin following a course of vancomycin when the patients were asymptomatic (and presumably when the infectious inoculum of C. difficile was low) was effective in stopping recurrences in many patients with multiple CDI episodes [3, 4].

Three patients in our clinic had failed multiple attempts to interrupt recurrences of CDI and were maintained on low-dose vancomycin until fidaxomicin became available (Table 1). These patients, aged 80 (female), 32 (female), and 67 (male) years had recurrent CDI episodes over a period of 24, 30, and 8 months, respectively. All of them had been initially treated with metronidazole followed by vancomycin and a tapering/
Infection Episodes, Treatments, and Outcomes in 3 Patients Following Fidaxomicin Regimen

Following their last CDI episode, patients were treated with a standard course of vancomycin. One patient had been given a rifaximin chaser on 2 occasions and intravenous immunoglobulin after failed attempts at vancomycin tapers (patient 3, Table 1). This patient reported long periods without symptoms after each rifaximin course (6–8 weeks), but eventually developed mucous stools with abdominal cramping and was retreated with vancomycin. One patient had been hospitalized with severe CDI following a slow vancomycin taper over a 5-month period (patient 2, Table 1). All 3 patients were left on vancomycin 125 mg daily or every other day until fidaxomicin became available.

Treatment options were discussed with the patients and the data available for fidaxomicin, including known or potential side effects were reviewed. Since no approved therapies were available for patients with multiple CDI recurrences, a standard course of fidaxomicin was offered based on published reports of the phase 3 randomized treatment trials [5, 6] and the product insert for fidaxomicin. Following the vancomycin “maintenance” therapy, vancomycin was stopped and a 10-day course of oral fidaxomicin, 200 mg twice daily, was administered. Two patients have had no CDI recurrences to date (9- and 10-month follow-ups) and one patient had no recurrence for 3 months but then had a symptomatic recurrence 1 week after a 3-day course of levofloxacin was given for a urinary tract infection.

Although data from well-designed trials of patients with multiple CDI recurrences is needed, fidaxomicin may be useful in breaking the cycle of multiple CDI recurrences.

**Notes**

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**Potential conflicts of interest.** S. J. has served as a consultant for Optimer, Pfizer, and Bio-K+; D. N. G. holds patents for the treatment and prevention of CDI licensed to ViroPharma; is a consultant for ViroPharma, Merck, Optimer, Cubist, Theradex, GlaxoSmithKline, Pfizer, BioRelix, Novartis, Medicines Co, Cangene, and Actelion; and holds research grants from the US Centers for Disease Control, GOJO, and Sanofi Pasteur.

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Table 1. Summary of Recurrent Clostridium difficile Infection Episodes, Treatments, and Outcomes in 3 Patients Following Fidaxomicin Administered as Post-Vancomycin “Chaser” Regimen

<table>
<thead>
<tr>
<th>Patient</th>
<th>No. of CDI Episodes</th>
<th>Regimens</th>
<th>Duration of CDI Treatment up to Fidaxomicin Chaser*</th>
<th>Outcome (Follow-up)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>M, M, V, V, V1</td>
<td>8 mo (6 mo continuous V until FDX chaser)</td>
<td>Success (10 mo)</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>M, V, V, V, V, V1 &amp; IVIG</td>
<td>24 mo (5 mo of continuous V until FDX chaser)</td>
<td>CDI recurrence 3 mo later, but was treated for UTI just prior to recurrence</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>M, M, V, V, V, V, V1 &amp; IVIG</td>
<td>30 mo (5 mo of continuous V until FDX chaser)</td>
<td>Success (9 mo)</td>
</tr>
</tbody>
</table>

Abbreviations: CID, Clostridium difficile infection; FDX, fidaxomicin; IVIG, intravenous immunoglobulin; IV/M, intravenous metronidazole; M, metronidazole; V, vancomycin; V1, vancomycin taper; V/Rfx, vancomycin followed by rifaximin “chaser”; UTI, urinary tract infection.

* Following their last CDI episode, patients were “maintained” on a low-dose regimen of oral vancomycin until fidaxomicin became available.