1651. Role of Metronidazole vs Vancomycin as Initial Therapy in Hospitalized Patients with Mild to Moderate *Clostridium difficile* Infection (CDI) with NAP1 vs non-NAP1 Disease

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Background. Oral metronidazole (Mtz) is regarded as standard therapy for mild to moderate (mm) CDI. As hypervirulent BI/NAP1/027 strain may result in serious disease, oral vancomycin (Vm) is increasingly being used as initial therapy for such infections. However, favorable impact of this shift in treatment strategy is not certain. To this effect, we reviewed treatment outcomes in patients with mmCDI at our University hospital.

Methods. Standard IDSA guidelines were used to define mmCDI. Response to treatment and rate of recurrence within 12 weeks after successful initial therapy were assessed retrospectively. Clinical failure was defined as persistence of diarrhea or progression to severe disease. Treatment responses to Mtz (500 mg PO 3x daily) vs Vm (125 mg PO 4x daily) were assessed in patients with NAP1 and nonNAP1 CDI, respectively.

Results. From 513 hospitalized patients with positive *C. difficile* stool PCR (June 2011 – July 2013), 168 with mmCDI (NAP1 n = 85, non-NAP1 n = 83) were included. Age, gender, comorbidities, serum creatinine, albumin and white blood cell count were comparable among these patients. Fever at initial presentation was common in patients treated with Vm vs Mtz (34% vs 12%; p = 0.01 and 31% vs 12%; p = 0.04, NAP1 and non-NAP1 CDI, respectively). Also, proton pump inhibitors were frequently given in patients treated with Vm vs Mtz (74% vs 50%; p = 0.02 and 43% vs 22%; p = 0.04, NAP1 and non-NAP1 CDI, respectively). In patients with non-NAP1 CDI treated with Vm vs Mtz, prior antibiotic exposure (<30 days) (86% vs 66%; p = 0.03) and concurrent antibiotic use were common (86% vs 59%; p = 0.006). For NAP1 CDI, clinical response to Mtz was 86% vs 97% to Vm (p = 0.1); CDI recurrences were 12% vs 15% in Mtz and Vm treated patients, respectively (p = 0.7). For non-NAP1 CDI, clinical response to Mtz was 78% vs 97% to Vm (p = 0.007); recurrences were 6% after Mtz and 12% after Vm therapy (p = 0.5). In logistic regression after adjusting for community-acquired CDI and NAP1 strain chronic liver disease was identified as a predictor of Mtz treatment failure (OR 4.4, 95% CI 1.19-16.4, p = 0.03).

Conclusion. In this cohort of hospitalized patients Mtz and Vm had similar efficacy in the treatment of NAP1 mmCDI. Clinical response to Vm was higher in patients with non-NAP1 mmCDI. Reduced Mtz efficacy was observed in patients with chronic liver disease.

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