

ERADICATION of PERSISTENT *C. DIFFICILE* INFECTION in PEDIATRIC PATIENTS REQUIRING COMPLEX MEDICAL CARE - EXPERIENCE with use of GOLYTELY® and VANCOMYCIN

M. Shah^{1,2}, L. Jeng^{1,2}, J. Padgett³, J. Gillespie³, K. Bentley¹, M. Gill¹, S. Klein¹, D. Padgett¹, R. Rao^{1,2}

¹Totally Kids, Pediatric Acute Rehabilitation and Sub-acute Care, Loma Linda, CA; ²Loma Linda University School of Medicine;

³Center for Healthcare Research

C. difficile infection is the leading cause of nosocomial enteric infections. A virulent strain resistant to multiple antibiotics makes eradication difficult. We describe our experience using Golytely® and vancomycin to eradicate *C. difficile* from pediatric patients requiring complex medical care with persistent or recurrent *C. diff* positive stool.

Methods

- Retrospective review
- Patients treated between 7/1/12-6/30/13
- Persistent *C. difficile* infection (all patients in isolation room) positive stool test for *C. diff* after treatment with metronidazole and vancomycin
- Initial positive stool test for *C. diff* (PCR) in symptomatic patient
- Eradication of *C. diff* was defined as 3 consecutive negative stool tests for *C. diff* (PCR) at weekly intervals after completion of treatment

Treatment Protocol

Metronidazole 30 mg per kg per day PO/GT divided q 6 hr x 10-14 days

Failed ↓

Vancomycin 40 mg per kg per day PO/GT divided q 6 hr x 10-14 days

Failed ↓

Golytely® (PEG) 20 cc per kg per hour thru G tube until clear stool (minimum 6 hours)

+ Vancomycin 40 – 50 mg per kg per day PO/GT divided q 6 hr x 7-14 days (one patient received vancomycin enema)

All patients were continued on probiotics

Results

- Total 7 (M:F - 3:4) patients
- Age – 4 ½ to 13 ½ yr
- All patients had G tube and had antibiotic within 1 year
- Total 11 treatment cycles – 5 patients had 1, 2 patients had 2, and 1 patient had 3 treatment cycles
- Successful eradication of *C. difficile* in all but one patient

Failure of Golytely® + Vancomycin treatment

- 2 patients failed 1 cycle, successful after 2 cycles (1-3 months apart). Both patients required antibiotic for UTI after completion of first cycle.
- 1 patient failed 3 cycles –
 - After each treatment cycle, stool test remained negative x 2 weeks and became positive at end of third week.

Conclusions

- Combination treatment consisting of whole bowel lavage and vancomycin is very successful in eradicating persistent *C. diff* infection in children requiring complex medical care
- Above treatment is feasible and can be easily rendered in sub-acute care facility setting