MELPHALAN INDUCED INTESTINAL MUCOSITIS IN AUTOLOGOUS HEMATOPOIETIC STEM CELL TRANSPLANT: RAPID RESPONSE TO SHORT COURSE OF ORAL BUDESONIDE

Rammurti Kamble, Gloria Obi, Audrey Scholoff, Susan Jacob, Romelia May, Breanna Hinman, Geroge Carrum

Center for Cell and Gene Therapy, Baylor College of Medicine and Houston Methodist Hospital, Houston, TX, USA

Background: Approximately, 40% of patients receiving high dose melphalan (HDM) develop grade III or IV diarrhea (CTCAE 5.0) that promptly improves upon neutrophilic engraftment. Persistence of grade III diarrhea beyond 24 hours post engraftment results in significant morbidity and prolongs hospitalization.
Aims: To Explore role of oral Budesonide for patients with persistent diarrhea following high dose melphalan based chemotherapy conditioning.
Methods: Histopathologic finding of colonic crypt inflammation in a patient with persistent diarrhea (first on table 1), led to use of short course of oral budesonide (BUD) resulting in rapid and sustained resolution of diarrhea. We here document 18 such cases and discuss its role in reducing morbidity and duration of hospitalization. Persistent grade III diarrhea 24 hours after neutrophil engraftment defined persistent diarrhea from melphalan. Infectious workup including stool examination for salmonella, shigella, rotavirus, cryptosporidium, clostridium difficile were performed.
Results: The median age of 18 patients was 66 (range, 44-74) years, (Females=8, Males=10). A total of 8 patients with multiple myeloma (MM)received melphalan 200 mg/m2. One MM patient with associated renal failure received Melphalan 140 mg/m2 as did 9 patients with lymphoma (table 1). Median time to neutrophilic engraftment following autologous stem cell transplant (ASCT) was day +12 (range, 9-13) days. Colonoscopy in one patient (first patient in table 1) confirmed patchy crypt apoptosis and crypt abscess formation. Standard supportive care including antidiarrheals offered no improvement. Oral budesonide (BUD) at 3-9 mg daily was introduced at median of 2 (range, -4 to11) days from engraftment. Median time for diarrhea improvement was 1 day (range, 1-7) days. The median duration of BUD administration was 2 (range, 1- 13) days. Median time to discharge from BUD initiation was 2 days (range 1-7). One patient was excluded from analysis as his stool tested positive for rotavirus; he too promptly responded to BUD. The median cumulative dose of BUD was 15 mg (range, 9-120).
Summary/Conclusions: We do not think these diarrheas were related to autologous graft versus host disease. We did not observe any untoward effects of such short courses of BUD. Oral BUD results in rapid resolution of lower GI toxicity of HDM and potentially lowers cost of hospitalization.