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Introduction: Patients undergoing hematopoietic cell transplantation (HCT) have an increased risk of *Clostridium difficile* infection (CD). Literature reports CD infection in nearly 20% of transplanted patients. No information about this infection in HCT patients has been reported in Chile.
Patients and Methods: We performed a retrospective analysis of 250 patients undergoing HCT at the Catholic University Hospital in Santiago, Chile, between 2000 and 2013. Statistical analysis of the data was conducted using SPSS Statistics v21.
Results: Of the 250 transplanted patients studied, 59% (n=147) were allo-HCT and 41% (n=103) were auto-HCT. The mean age was 39 years old (range, 15-69), with a male predominance (151 patients; 60%). Main indications for HCT were acute leukemia (n=104; 42%), multiple myeloma (n=36; 14%) and lymphoma (n=49; 20%). 93% of patients received myeloablative (MA) regimens, and all of them received proton pump inhibitors and prophylactic antibiotics the previous months of the HCT. Of the 250 patients studied, 192 (77%) had at least one episode of diarrhea that required study, among them 13% (n=25) were documented as positive for CD (toxin assay or PCR test), the mean age of this group was 36 years old (range, 18-62), with a male predominance (15 patients, 60%). All of the infected patients had mild to moderate diseases and there were no deaths attributed to it. 80% (n=20) of the infected patients underwent allo-HCT and 20% (n=5) auto-HCT. In the allo-HCT group, 53% had acute lymphoblastic leukemia, 6% acute myeloid leukemia, 24% chronic myeloid leukemia and 12% other causes. In the auto-HCT group, 40% were transplanted due to multiple myeloma, 20% amyloidosis, 20% germinal cancer and 20% acute myeloid leukemia. No patient required total central parenteral nutrition previous to the infection. During the 3 months before HCT, 84% (n=21) of the infected patients used antibiotics including cephalosporins, carbapenem, aminoglicosides and vancomycin. The overall incidence of CD infection in the first week, month and year after transplant, was 4%, 6% and 10%, respectively, with a median time frame from transplantation to infection diagnosis of 20 days. In auto-HCT, 7 days, 30 days and 1 year CD incidence was 2, 3 and 5%, respectively. In allo-HCT, 7 days, 30 days and 1 year CD incidence was 5, 9 and 14%, respectively. There was no significant statistical difference in overall survival (OS) between the infected and non-infected patients one year after the transplant (OS 68% for CD negative vs. 72% for CD positive, p=0.61).
Conclusions: In our institution CD infection in patients undergoing HCT had a similar incidence to other reports. Most of cases occur before the first week after HCT (40% of the cases), and the remained stable afterwards. We identified the type of transplant (allo-HCT 3 times higher risk than auto-HCT) and disease (ALL 3 times higher risk than AML) as risk factors for CD infection.

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Nutritional Assessment As Predictor of Complications Post Hematopoietic Cell Transplantation

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Introduction: Nutritional support is pivotal in patients with hematologic malignancies and hematopoietic cell transplantation (HCT). Optimal nutritional status is associated with a shorter time of engraftment and less infection rates during the initial phase. We present our experience in nutritional assessment pre and post transplantation.
Objective: To evaluate the possible association between nutritional parameters and outcomes such as overall survival and specific complications, in patients who underwent HCT.
Patients and Methods: Retrospective study in patients with HCT between June 2011 and May 2014 in our center. We assessed nutritional status before transplantation and then 10 days after it. Nutritional assessment included anthropometry, body mass index (BMI), albumin, prealbumin and total urinary nitrogen (TUN). Statistical analysis was made using IBP SSPS v.20.
Results: We studied a total of 50 patients between June 2011 and May 2014. Media following time: 35 months. Median age was 41 years (18-67), 33 (66%) were male and 17 (33%) female. Thirty two underwent (64%) allogeneic HCT and 18 (36%) autologous HSCT, with 42 undergoing (84%) myeloablative conditioning and 8 (16%) reduced intensity conditioning. Diagnoses included acute leukemia (26), lymphoma (7), multiple myeloma (13), and aplastic anemia (3). Thirty seven patients developed mucositis and 31 required parenteral nutrition (PN). Twenty three patients developed mucositis and required PN (mild: 2, moderate: 20, severe: 1) Incidence of mucositis between allogeneic and autologous HCT that required PN was similar (75% vs 72%). Albumin levels were 4,1mg/dL before and 3,3 mg/dL 10 days after HSCT ($p<0,05$). No difference was found between BMI, dynamometry and TUN before and after HCT. TUN before HCT was associated with more days of PN ($p<0,05$). Multivariate analysis showed an association between lower albumin levels after HCT and PN requirement, as well as a longer length of stay. High TUN and lower albumin levels after HCT were associated with longer platelet engraftment time ($p<0,05$). Longer engrafment time was associated with longer duration of PN ($p<0,05$). Nine patients (28%) in the allogeneic group developed acute gastrointestinal graft versus host disease (GVHD) that required prolonged PN. No association was found between BMI, albumin, prealbumin, TUN or requirement of PN, with the risk of mucositis or infectious complications. None of the evaluated nutritional parameters were associated with overall survive (OS).
Conclusion: High catabolism was associated with a longer length of stay, the requirement of PN and a prolonged platelet engraftment time. Acute gastrointestinal GVHD was associated with more requirement and a longer duration of PN. Nutritional parameters were not associated with any risk of infection and OS.

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Single Dose Plerixafor and Multi-Day Apheresis: Skip Dosing Enables Cost Efficient Mobilization for Patients Close to Achieving Treatment Goals

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Plerixafor (P) is highly effective at mobilizing peripheral blood stem cells. Most centers, including our own, have an algorithm that utilizes P in patients who are predicted to have poor collections using G CSF alone, based on peripheral