

homing to the GI tract results in decreased GVHD severity and improved outcome in an established humanized mouse model of allo HCT.

**Methods:** Sublethally irradiated RAG2-/-  $\gamma$ c-/- mice were transplanted with 30 million human PBMCs (huPBMCs). Vedolizumab or control IgG was given intraperitoneally at a dose of 4mg/kg body weight on day -1 and day +15 (preventive approach) or day +8 and day +22 (therapeutic approach). Time points were chosen in order to start  $\alpha$ 4 $\beta$ 7 blockade prior to clinical onset of GVHD (preventive approach) and when animals started to get significantly suffer from GVHD (therapeutic approach). As non-GVHD controls, animals received sublethal irradiation without huPBMCs administration and received VDZ or control IgG to assess for direct conditioning and VDZ toxicity.

**Results:** HuPBMC CD45 splenocyte analysis on day +28 after infusion demonstrated strong human leukocyte engraftment with more than 80% of spleen cells being huCD45 positive. Both preventive and therapeutic administration of Vedolizumab resulted in significantly improved survival in HuPBMC treated recipients when compared to IgG treated GVHD controls at week 8 (62.6% Vs 12.5% and 50% Vs 12.5% respectively). All recipients, which did not receive huPBMCs survived, indicating VDZ safety in this model. Clinical GVHD scores after day 21 after transplant were significantly lower in VDZ huPBMCs treated animals until end of analysis compared to control-treated recipients using both the preventive and therapeutic approaches, along with significant decreases in GI tract pathology scores on day +28. No differences in pathology were seen in liver or lung at this time point. Serum cytokine analysis revealed decreases in TNF ( $p < 0.05$ ) and IFN $\gamma$  ( $p < 0.05$ ) levels in Vedolizumab therapeutically treated recipients on day +28 and in TNF ( $p < 0.05$ ) in preventively treated recipients compared to control treated animals. Histopathologic analysis of T cell infiltration of small intestine and colon by immunohistochemistry for CD3 antibody revealed significantly lower infiltration of human T cells in VDZ huPBMCs treated group ( $p < 0.05$ ).

**Conclusion:** Vedolizumab reduces the severity of intestinal GVHD by targeting donor T cell migration into the intestinal tract both when given early prior to onset of clinical disease and given at later time point, and improves overall survival both in the preventive and therapeutic setting. Given these promising results, targeting T cell homing with VDZ potentially presents a novel option for the management of intestinal GVHD.

## HEALTH SERVICES

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#### Assessing Patients' Knowledge and Attitudes Towards HSCT in an Outpatient-Based Transplant Center in Mexico

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**Introduction:** The lack of patients' understanding of diagnosis, prognosis and treatment options can complicate an informed decision to undergo HSCT. Our outpatient-based HSCT unit in Northeast Mexico performs near 100 transplants/year. We

treat patients from different regions and sociocultural backgrounds, representing a challenge during the initial evaluation. **Objective:** We aim to assess knowledge and attitudes in HSCT candidates regarding their diagnosis, prognosis and treatment including HSCT.

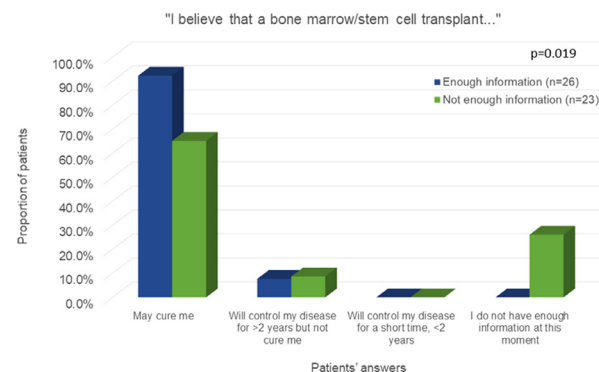
**Methods:** Since December 2017, all new adult patients visiting our unit were asked to complete a 36-element survey prior to initial consultation. Questions were taken from a published questionnaire with face validity translated into Spanish, evaluating patients' perception related to diagnosis, prognosis, and treatment options including HSCT.

Patients were grouped according to transplant type, place of residence, education, insurance and healthcare provider. We analyzed answers according to patients' perceived level of knowledge regarding HSCT (with vs without enough information to make a decision) and disease risk index (DRI). Variables were analyzed using Chi-squared or Mann-Whitney test.

**Results:** Forty-nine patients have answered the survey: 29 females (59.2%), median age 47 years (16-71). Most patients were eligible for auto-HSCT (53.1%), 59.2% lived in another city, 55.1% had low education level, 55.1% had public health insurance, and 65.3% were treated in a public healthcare center. DRI was obtained in 47 patients: high-very high (40.4%) vs low-intermediate (59.6%). Overall, 57.1% stated to have enough information about their diagnosis, and 53.1% about their treatment options and HSCT. More local patients had enough information about treatment options than those living in a foreign city (70 vs 41.4%);  $p = 0.048$ . No other differences were observed.

A higher proportion of patients who reported to have enough information believed that HSCT might cure them compared to those w/o enough information (92.3 vs 65.2%);  $p = 0.019$  (Fig 1). Also, 84.6% of patients with enough information expressed to have excellent chances ( $\geq 80\%$ ) to be cured after HSCT, compared to 52.2% of low-informed ones;  $p = 0.008$  (Fig 2). The proportion of high-very high DRI patients that expressed to have excellent chances of being cured with HSCT was similar to those with low-intermediate DRI (68.4 vs 71.4%);  $p = 0.295$  (Fig 3).

**Conclusion:** Many patients referred to our HSCT unit lack information regarding their disease, prognosis and treatment options. Significantly, patients living in a foreign city were less informed about therapeutic options than local patients. Moreover, patients who perceived to have enough information about HSCT tended to overestimate their prognosis. Implementation of further educational strategies is mandatory to enhance patients' knowledge to take an informed decision for HSCT.



**Figure 1.** Patients' perception about their prognosis according to level of information.