

Convegno Educazionale GITMO

LE TERAPIE CELLULARI IN EMATOLOGIA TRA PASSATO, PRESENTE E FUTURO

Introduzione al dott Enrico Morello

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ORIGINAL ARTICLE

Poor oral nutrition after allogeneic stem cell transplantation correlates significantly with severe graft-versus-host disease

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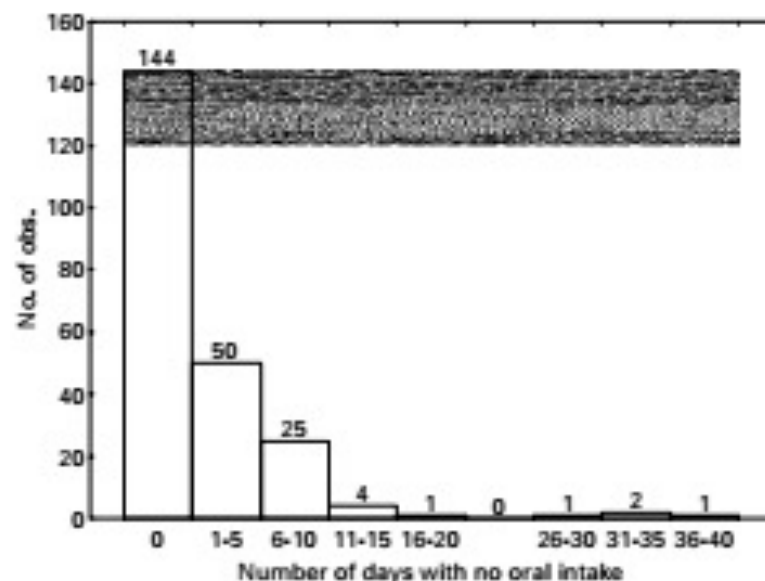


Figure 1 Histogram of number of days with no oral intake after HSCT.

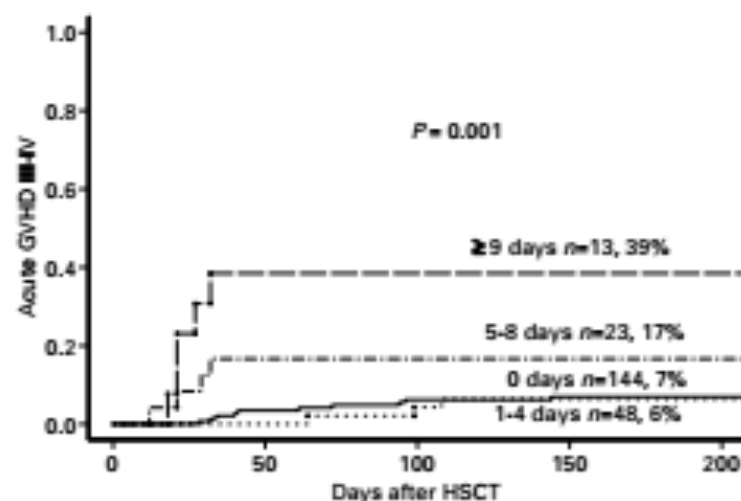


Figure 2 Cumulative incidence of acute GVHD grades III-IV in 231 HSCT patients depending on number of days with no oral intake.

Nutritional support in patients undergoing haematopoietic stem cell transplantation: a multicentre survey of the Gruppo Italiano Trapianto Midollo Osseo (GITMO) transplant programmes

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ecancer 2015, 9:545

Nutritional support is a dynamic process that is configured in different phases:

Screening and formal assessment of nutritional status

Implementation of the NS plan

Patient monitoring

Re-evaluation of on-going care strategy

End of treatment and follow-up

Table 2. Screening and formal evaluation.

Topic (question)	Results	n (%)
Screening and formal evaluation		
<i>In your centre, is there a guideline, protocol, or procedure for the evaluation of the patients nutritional status?</i>	Yes No	36 (43%) 47 (57%)
<i>In your centre, is a screening assessment performed to evaluate nutritional status and risk?</i>	No screening Screening only if necessary Screening at admission only Screening at admission and regularly throughout inpatient stay Other (not specified)	32 (39%) 20 (24%) 10 (12%) 20 (24%) 1 (1%)
<i>In centres where screening took place, how did this take place (more than one response possible):</i>	Part of history taking (social and dietary) Anthropological parameters Blood chemistry parameters Specific nutritional indices Specific nutritional tools Other (not specified)	37 34 34 19 5 1
<i>In centres where screening took place, who performed the screening:</i>	Haematology doctors Nurses Nutritionists Dietitians Other (Specified: Head Nurse)	32 27 11 13 1

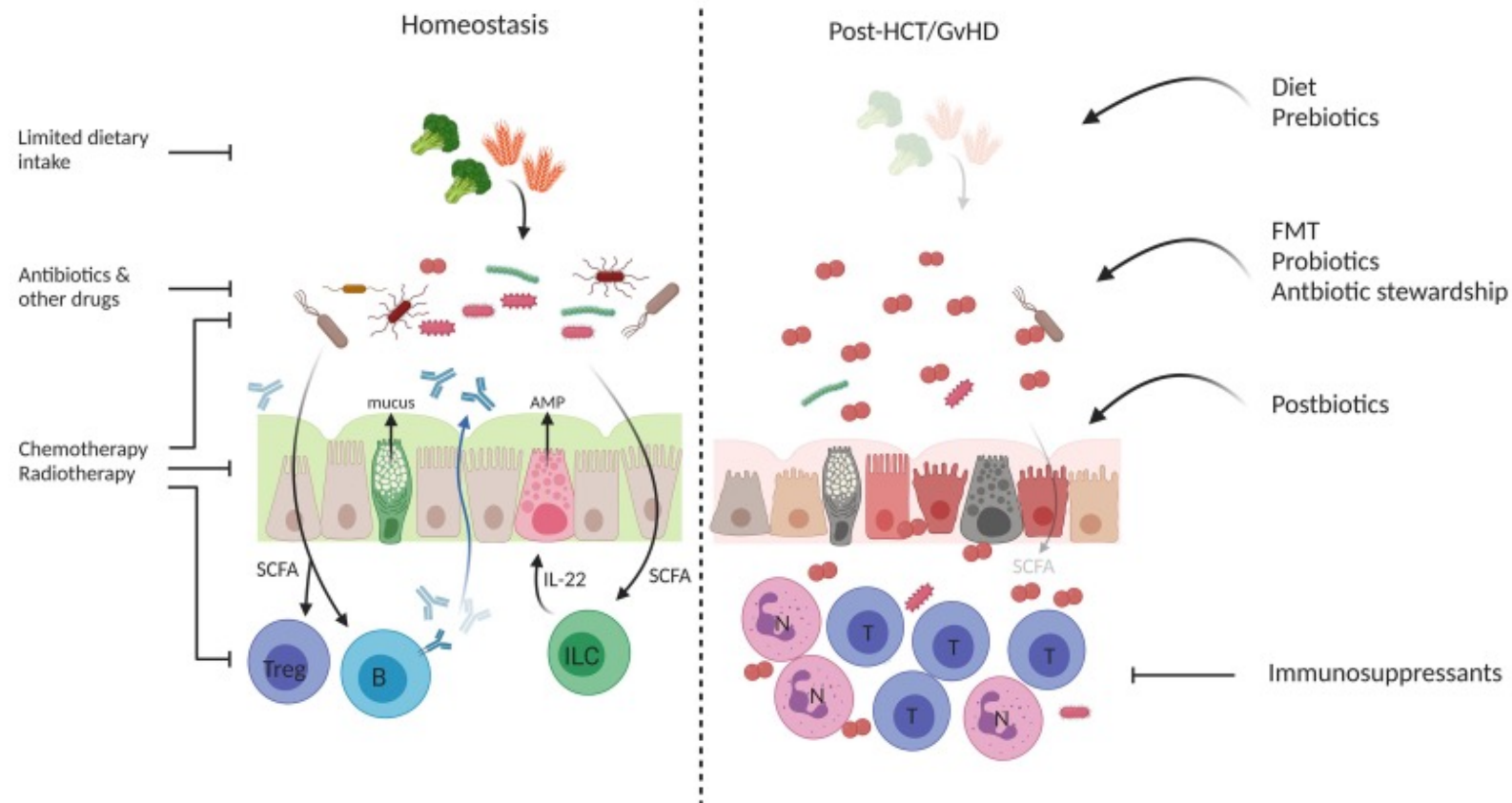


Figure 3. Disruption and restoration of intestinal homeostasis in GvHD. In the healthy situation (left panel), commensals metabolize dietary fibers to short-chain fatty acids (SCFA), which are important for **immunologic tolerance** via induction of regulatory T cells (Treg) and the production of secretory IgA by B cells (b). SCFA **enhance IL-22** production via innate lymphoid cells (ILC) thereby supporting epithelial integrity and promoting **anti-microbial peptide** (AMP) production that are important in shaping the microbial community and the **prevention** of pathogen outgrowth. **Goblet cells** produce mucus to **hamper bacterial translocation**. All of these processes are impacted by factors that are inherent in cancer treatment, such as the use of antibiotics, changes in diet, etcetera. This results in **dysbiosis**, low levels of SCFA, hampered mucus production, damage to epithelial cells, activation and the influx of (alloreactive) T cells (t) and neutrophils (n), and inflammation (right panel). Where classic GvHD treatment predominantly focuses on tempering immune activation via immunosuppressants, novel approaches include therapies that target the microbiota to prevent or treat dysbiosis.

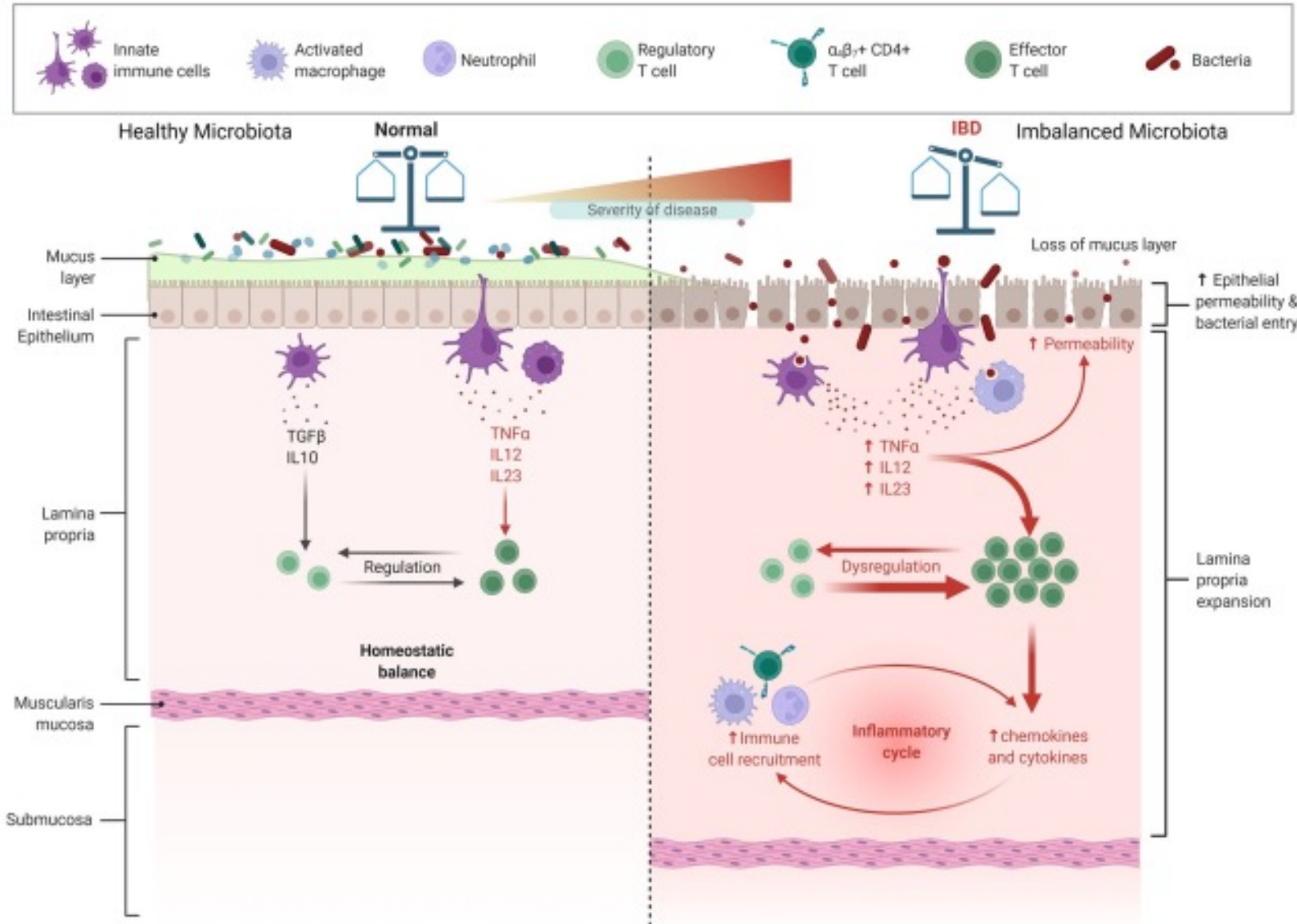


Fig.2 The misbalance in the population of the host microbiota results in the leaky gut and in turn initiates the inflammatory cycle through the unregulatory release of chemokines and cytokines