Nutrition and GVHD

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September 29th, 2020
Addressing GVHD through Nutrition

GVHD requires a team approach and individualized management
Decreasing Risk of GVHD

- Poor oral intake leads to increased risk of acute and chronic GVHD
- Maintaining adequate oral intake and weight are important ways to decrease GVHD risk

However, many patients’ intake is limited by:
- Loss of appetite or lack of hunger
- Nausea and vomiting
- Diarrhea
- Mouth dryness
- Taste changes

Thus, it is important to work with a dietitian to help maintain your oral intake

Golden rule: small, frequent meals and snacks every 3-4 hours
- Focus on higher protein, higher calorie options

No true way to prevent GVHD, only to decrease the risk of GVHD

Connecting GVHD Risk to Microbiotal Decline

Alpha diversity over time, N=93

Calorie needs met over time, N=80

Foods diversity in whole population
Organs Affected by GVHD

**Organs with Impact on Nutritional Status**

**Mouth**
- Mouth sores and taste changes

**Esophagus**
- Trouble swallowing (+/- pain)

**Upper GI (stomach, pancreas)**
- Nausea, vomiting, reflux

**Lower GI (small and large intestine)**
- Diarrhea and abdominal pain

**Lungs**
- Increased nutritional needs to support breathing
Acute GVHD occurs between engraftment (~ day 14 post-transplant) and day 100.

**Stomach**

- Loss of Appetite, Nausea & Reflux
  - Avoid trigger foods
  - Do not lay down for at least 30 min
  - Small portions
  - Bland food with less odor

- **Gastroparesis**
  - Small portions
  - Lower fat foods
  - High-calorie, high-protein liquids
  - Monitor for bloating

**Intestines & Colon**

- **Diarrhea**
  - **Severe:** bowel rest
  - **When improving:**
    - Low fat, low fiber, low lactose
    - “BRAT” Diet
Treatment of Chronic GVHD (aGVHD)

- Chronic GVHD occurs anytime after day 100.

**Mouth**
- **Mouth Sores**
  - Pain control
  - Avoid spicy, acidic, and hot foods
  - Softer, cooler foods and liquids
  - Oral nutrition supplements

- **Dry Mouth & Taste Changes**
  - Mouth rinses
  - Remain hydrated
  - Sauces, fluids, gravies
  - Increased salt and herbs

**Esophagus**
- Softer foods, sometimes pureed
- Pain control
- Cooler foods/fluids (or room temp)
- Small portions
- Avoid laying down after eating
Potential approaches to target the microbiota

Treatment of Chronic GVHD (cGVHD)

- Chronic GVHD may also be complicated by acute flares of GVHD
- Usually have worse symptoms during acute flares
- *Same symptom management techniques as acute GVHD*

**Nutrition Therapy for Chronic GVHD**

- **Pancreas Function**
  - Blood sugar control and digestive enzymes may be needed

- **Chewing, Swallowing, and Oral Intake**
  - Work with doctor and speech language pathologist if trouble swallowing
  - If losing weight and unable to maintain intake, might need long-term tube feeding

- **Bone Health**
  - Due to chronic steroid use
  - Ask doctor about regular bone scans (DEXA) to check bone health
  - Supplement with calcium and vitamin D as needed (work with dietitian)
  - Participate in regular physical activity, especially resistance exercises