Graft Versus Host Disease (GVHD)

Graft Versus Host Disease (GVHD) is a problem that can occur after allogeneic bone marrow transplants (BMT). About 40-50% of patients may have this problem. It is more common in matched unrelated or mismatched transplants.

This handout gives general information about GVHD.

What causes GVHD?

GVHD is a response of your immune system. It is caused by the immune cells or “lymphocytes” of the new bone marrow you received. These lymphocytes see your body cells as being different and may attack and destroy your body cells. This is called graft versus host disease.

Graft versus host means:

- **Graft** - the bone marrow, stem cells or lymphocytes you receive from a donor.
- **Versus** - against
- **Host** - your own body cells

Types of GVHD

There are two different types of GVHD: Acute and Chronic.

- **Acute GVHD**

  Acute GVHD may develop within 3 months after your BMT, when your blood counts start to improve. Most often, it affects your skin, gastrointestinal (GI) tract and liver. The symptoms of acute GVHD happen quickly and can be mild or severe.
**Chronic GVHD**

Chronic GVHD may occur 3 to 12 months or longer after your BMT. Chronic GVHD symptoms start slowly and can be mild or severe. Most symptoms are mild and can be controlled by medicines.

The chart below lists the most common symptoms of Acute and Chronic GVHD:

<table>
<thead>
<tr>
<th>GVHD</th>
<th>Skin</th>
<th>GI Tract</th>
<th>Liver</th>
<th>Lungs</th>
<th>Eyes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>• Redness of palms of hands and soles of feet</td>
<td>• Diarrhea</td>
<td>• Enlarged liver</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Body rash</td>
<td>• Nausea</td>
<td>• Increased liver functions tests* (bloodwork)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sensitive, itching or dry skin</td>
<td>• Loss of appetite</td>
<td>• Abdominal cramps</td>
<td>• Abdominal tenderness</td>
<td></td>
</tr>
<tr>
<td>Chronic</td>
<td>• Darkened and dry skin</td>
<td>• Diarrhea</td>
<td>• A gradual increase in liver functions tests* (bloodwork)</td>
<td>• Hard to take deep breaths</td>
<td>• Dry eyes</td>
</tr>
<tr>
<td></td>
<td>• Peeling of skin</td>
<td>• Weight loss</td>
<td>• Enlarged liver</td>
<td>• Shortness of breath</td>
<td>• Sensitivity to light</td>
</tr>
<tr>
<td></td>
<td>• Body rash</td>
<td>• Difficulty eating or loss of appetite</td>
<td>• Abdominal tenderness</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Dry mouth</td>
<td>• Yellowish color of skin and eyes</td>
<td></td>
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</tr>
</tbody>
</table>

*Liver function tests* - Bloodwork that allows us to see how the liver is working.
Prevention/Treatment

Medicines can be used to prevent acute and chronic GVHD. These medicines may be started before your BMT to slow down or suppress your immune system. If needed, your doctor may also order these medicines to help with your GVHD symptoms. The most common types of GVHD medicines used include the following:

- Cyclosporine
- Tacrolimus (Prograf)
- Mycophenolate (Cellcept)
- Methotrexate
- Steroids

Your doctor or nurse will give you more information about the prevention and treatment of GVHD.