Graft Versus Host Disease (GVHD)

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

This handout gives general information about GVHD.

What causes GVHD?

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

Graft versus host means:

- **Graft** - Donor bone marrow and immune cells or lymphocytes given to the recipient
- **Versus** - Against
- **Host** - Recipients body cells

Types of GVHD

There are two different types of GVHD. Review the chart of GVHD symptoms on the next page.

**Acute GVHD**

Acute GVHD may develop within 3 months after transplant. It may begin to occur when blood counts recover after transplant. It usually affects the skin, gastrointestinal (GI) tract and liver. The symptoms of acute GVHD happen quickly and can be mild or severe.
**Chronic**

Chronic GVHD may occur from three months to a year or longer after transplant.

Chronic GVHD symptoms progress slowly and can be mild or severe. Usually chronic symptoms are mild and can be controlled by medicines.

**Prevention/Treatment**

Special medicines are given to prevent acute and chronic GVHD. These medicines are started before your transplant. The medicines are used to slow down or suppress the immune system, to prevent GVHD. These medicines can also be used to treat GVHD by adjusting the dosages. Examples of medicines are cyclosporine, tacrolimus (Prograf®), mycophenolate (Cellcept®), methotrexate, and steroids. Your doctor or nurse will give you more information about these medicines.

<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><strong>Acute</strong></td>
<td>• Redness of palms of hands and soles of feet</td>
<td>• Diarrhea</td>
<td>• Enlarged liver</td>
<td>• Hard to take deep breaths</td>
<td>• Dry eyes</td>
</tr>
<tr>
<td><strong>Chronic</strong></td>
<td>• Darkened and dry skin</td>
<td>• Diarrhea</td>
<td>• A gradual increase in liver functions tests* (bloodwork)</td>
<td>• Enlarged liver</td>
<td>• Sensitivity to light</td>
</tr>
</tbody>
</table>

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

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