**Graft versus Host disease**

Occurs following allogeneic stem cell transplantation, and solid organ transplants (when some lymphoid tissue gets a ride across into the new patient)

**HYPER-ACUTE:** within 7-14 days  
**ACUTE GVHD:** in the first 100 days after transplant  
**CHRONIC GVHD:** after the first 100 days

### Clinical Picture of Symptoms:

#### 20 days post transplant: ACUTE GVHD

- **THE RASH**  
  Red to violaceous in colour  
  First on palms of hands  
  Then soles of feet  
  Then cheeks, neck, ears, and upper trunk  
  Vesicles and bullae may form.

- **CHRONIC GVHD** causes the formation of lichenoid plaques and possibly limb contractures due to skin thickening.

#### CHRONIC GVHD

- **burning sensation in eyes**  
- **irritation,photophobia, and pain** occur from lack of tear secretion.  
- **Dry mouth,**  
  **sensitivity to acidic or spicy foods,**  
  **dysphagia**  
  **odynophagia**  
  **insidious weight loss.**  
- **wheezing, dyspnea, and chronic cough**  
  **OBSTRUCTIVE lung disease nonresponsive to bronchodilators**

- **Weakness**  
- **neuropathic pain**  
- **muscle cramps**

**WHAT IS THE RISK?**

- HLA-identical sibling donor = 19-66%  
- HLA matched unrelated donor = 70-90%

### Clinical Triad of GVHD:

**Dermatitis, Hepatitis, Enteritis**

### Pathophysiology:

The graft, containing immune cells, is implanted into an immunosuppressed host;  
The cells react with the antigens of the host, and the graft attacks.

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### Physical Exam Findings

**EYES**  
Hemorrhagic conjunctivitis, pseudomembrane formation, inability to close upper lid  
Erosions of the cornea = associated with poorer prognosis

**MOUTH**  
Atrophy of oral mucosa   
Mouth + lip erythema + lichenus (more chronic)

**LUNGS**  
Bronchiolitis obliterans → wheezes.

**ABDOMEN**  
Diffuse tenderness with hyperactive bowel sounds  
Severe ileus = abdo silent and distended.

**LIVER:**  
Jaundice, pruritis

**OTHER:**  
RASH, Polymyositis, Vaginitis and vaginal strictures, Autoimmune thrombocytopenia and anaemia

### Cholestatic Picture

- **ALT**
- **AST**
- **AP**
- **Bilirubin**

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### Investigations

**LFT, FBC, EUC, liver ultrasound, spirometry, SKIN BIOPSY IS DIAGNOSTIC**

### Management (acute)

- **KEEP the original immune suppressive drugs** eg.
  - **TACROLIMUS** = macrolide immunomodulator, inhibits calcineurin phosphatase in T-cells, thus decreased cytokine synthesis  
  - But also add **METHYLprednisone**

### Management (chronic)

- Thalidamide, cyclosporin, prednisone, azathioprine

Median time to resolution of acute GVHD is 30-42 days