

Stem Cell Transplant Challenges During COVID-19

Edward Peres
Associate Professor
Hematology Oncology
Stem Cell Transplant
Henry Ford Cancer Institute
Wayne State University

OVERVIEW

Will discuss:

Acute and Chronic GVHD

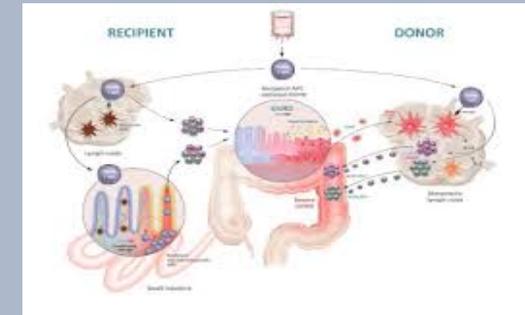
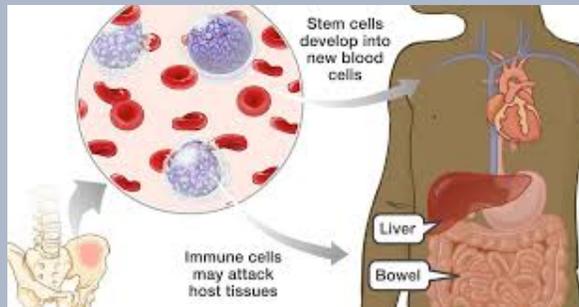
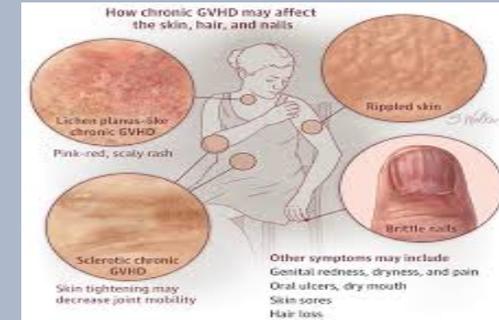
Cognitive Impairment after SCT

Navigating Care during COVID

ACUTE GVHD BACKGROUND

Occurs in up to 25-30% of Related and 45-50% Unrelated Stem Cell Transplants

Target organs Skin, GI Tract, Liver
Due to HLA-disparity



Important cause of early mortality Post transplant and has a major impact on quality of life and long term Immunosuppression

SIGNS OF ACUTE GVHD

Skin

Can develop a very faint to severe sunburn like rash

Blisters

Stomach/Intestines

Nausea That Doesn't go away

Loss of appetite

Vomiting (throwing up)

Feeling full after eating very little

Diarrhea Belly pain that doesn't go away

Feeling bloated

Blood in the stool

Liver

Skin or Eyes look yellow

Stomach pain or RUQ

Dark tea colored urine

MANAGEMENT OF ACUTE GVHD

Corticosteroids are the mainstay of treatment along with local treatments for the Skin, GI Tract, Mouth and Eyes

Response to treatment is the most important factor to determine

Tapering of steroids and immunosuppression

Risk of development of GVHD is based on the donor and conditioning

Multiple additional therapies to consider: Jakafi, ECP, Clinical Trials

MANAGEMENT OF ACUTE GVHD

Goal is to taper immunosuppression and prevent relapse of GVHD

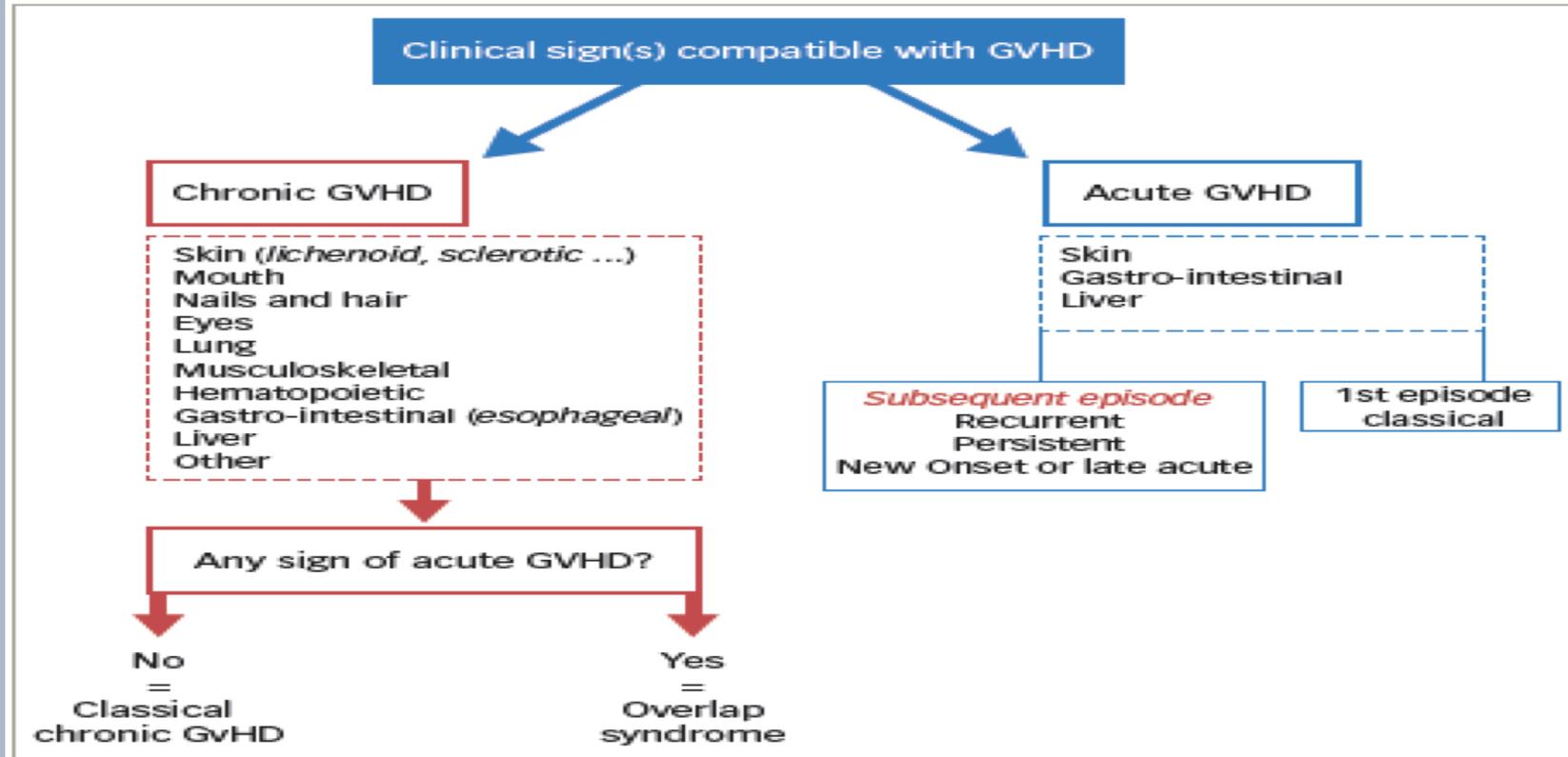
Have to be patient with relapses and the time frame to get off steroids

Tolerance will develop over a long period of time: It will get better

Overlap syndrome may develop with manifestations of CGHVD

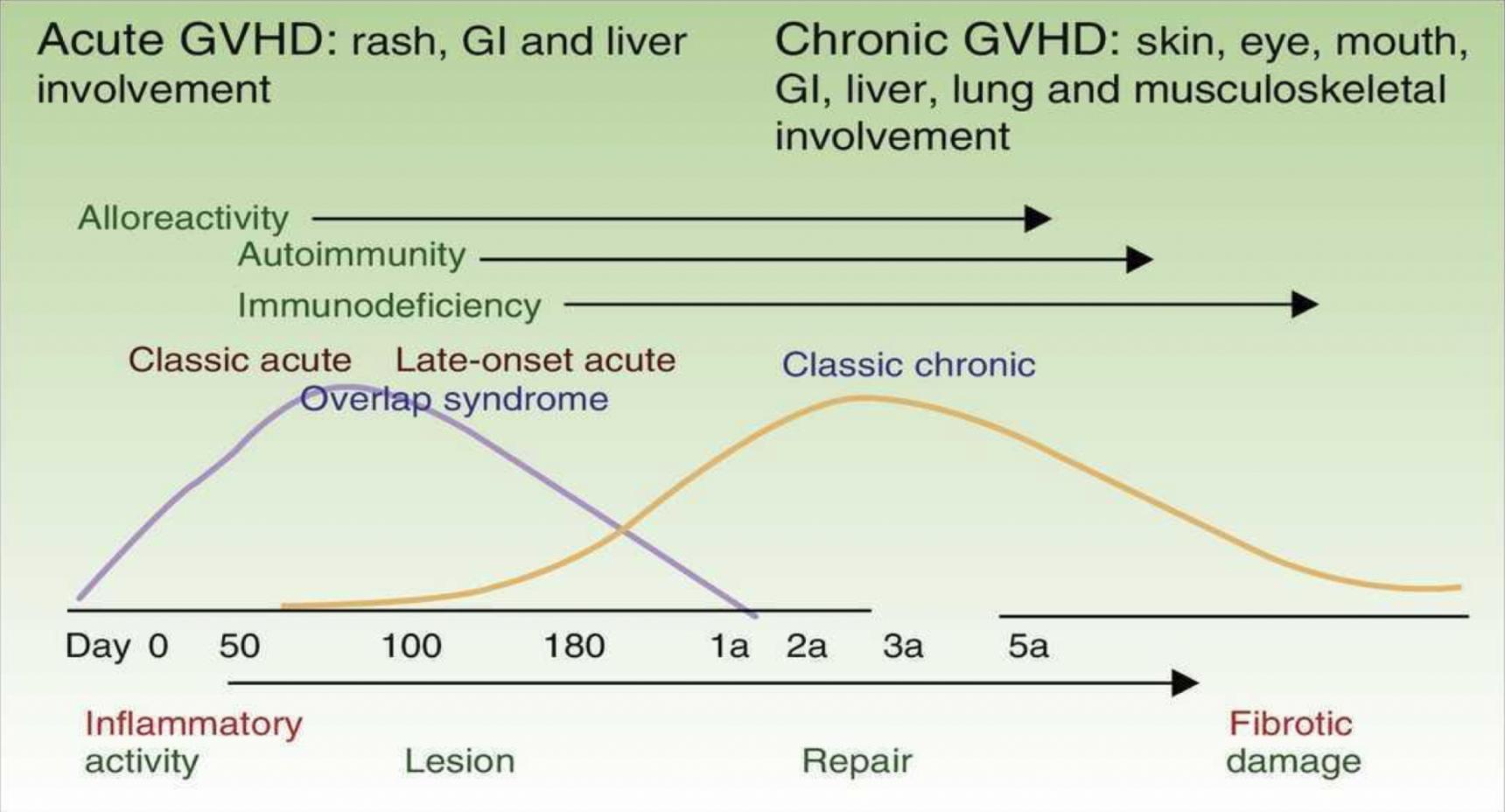
CHRONIC GVHD

Figure 1: Diagnosis of graft-versus-host disease according to National Institutes of Health consensus criteria



GVHD = graft-versus-host disease. Data in this figure was sourced from Socie et al.¹

CHRONIC GVHD



MANAGEMENT OF CGVHD

Ocular: F/U Ophthalmology dry eye treatment

Skin: Symptomatic treatment fibrotic and non-fibrotic skin treatment

- **Topical steroids/steroid shampoo**
- **Pro-topic**
- **Emollients**
- **Yoga/Stretching/massage/Physical Exercise**

- **Oral GVHD: Topical treatment**

- **Pain management**

COGNITIVE CHANGES AFTER SCT

Cognitive Changes That Patients May Experience During and After Chemotherapy



Difficulty with new learning



Taking longer
to complete tasks



Trouble multitasking



Difficulty finding
the right word

COGNITIVE IMPAIRMENT MANAGEMENT

Cognitive therapist: can help with an overall plan for management

Address the additional factors that can lead to worsening of cognitive impairment

**Activity and exercise can help with fatigue and sleep stress management,
Depression**

APP's: Games, CBT, Mind-Doc, Calendars and reminders can all be very helpful

Caregiver and patient need to advocate to seek help with their care team

STEM CELL TRANSPLANT CARE DURING COVID

The care of patients during their transplant admission has significantly been impacted by COVID-19

Trying to maintain COVID free units impacting work force and care

Visitor restrictions for family members and friends has lead to additional stressors for the Individual undergoing transplant including isolation, increased anxiety, communication with family members and discussion about the status of the patient undergoing SCT

Since the majority of patients during the course of treatment Develop fever and cough the concern for being DX with COVID adds additional stressors and anxiety



POST TRANSPLANT CARE DURING COVID

Follow up after a SCT is essential in monitoring blood counts, fatigue, weight gain and loss, diet and activity

During the pandemic trying to minimize visits and the incorporation of telemedicine has become standard to prevent exposure to COVID

This has lead to the patient and family having to do additional care and monitoring to avoid having to go to the ER post transplant

The additional cost of a pulse oximeter, Blood pressure cuff, scale and other items add additional tasks that caregivers must perform

Additional measures for hand hygiene, social distancing, avoiding travel, and private transportation has been deemed essential during the outbreak

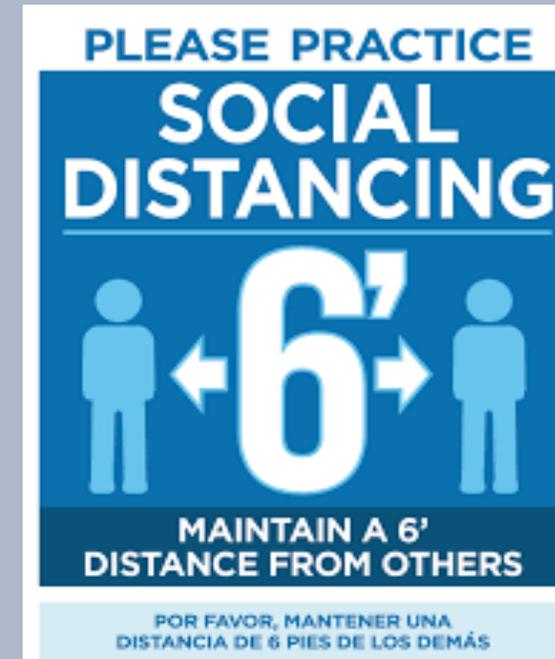


POST TRANSPLANT CARE DURING COVID

Physical and social isolation while a usual practice now extends further and for a prolonged period of time

Local nursing services have been extended further for a long period of time due to the inability to visit cancer centers

Additional triage and test prior to essential visits are mandatory which leads to additional strain on the Cancer centers and staffing

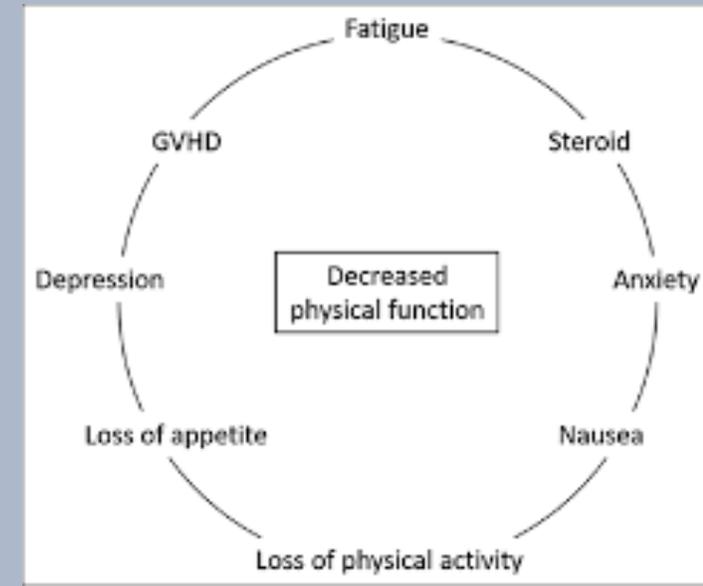


POST TRANSPLANT CARE DURING COVID

Managing the multitude of post transplant fatigue, stress, depression and activity

Trying to incorporate coping skills to address fatigue and loss of physical activity with on line resources including yoga, strength training and mindfulness are important

Inactivity leads to additional stressors: muscle wasting depression and additional fatigue



POST TRANSPLANT CARE DURING COVID

Telemedicine has been essential however recognition of acute GVHD and chronic GVHD can be challenging

ECP, steroids and multiple immunosuppressants increase the risk of the ability to respond to COVID Infection

Management of fever from viral and bacterial infection trying to avoid the ER is complex and the need to rule out COVID prior to admission remains challenging



POST TRANSPLANT CARE DURING COVID

In summary, the COVID-19 pandemic has resulted in unprecedented challenges to transplant programs and patients

Transplant centers have transitioned to telemedicine and outpatient labs avoiding the need for unwanted exposure

Maximizing support from each transplant center and utilizing the internet for mindfulness and activity is helpful in these unprecedented times

With a hope to returning to some degree of normalcy in the near future

The End