



Hematopoietic Stem Cell Transplantation

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- Which of the following newly diagnosed patients is most likely to be considered for an allogeneic hematopoietic stem cell transplant (HSCT)?
 - Mr. Williams, a 23-year-old with acute leukemia
 - Mrs. Smith, a 45-year-old with breast cancer
 - Mr. Henderson, a 54-year-old with multiple myeloma
 - Ms. Elliott, a 36-year-old with Hodgkin lymphoma
- Mrs. Johnston is being evaluated for HSCT. Mr. Johnston states that he has done quite a bit of Internet-based research about stem cell transplants and asks you what the main disadvantage of an autologous HSCT is over an allogeneic HSCT. Your response is based on the fact that autologous HSCTs have a
 - Higher treatment-related mortality.
 - Higher incidence of graft-versus-host disease (GVHD).
 - Delayed return of normal bone marrow function.
 - Higher incidence of mortality from recurrent disease.
- Which of the following antigens is consistently present on all hematopoietic stem cells?
 - CD3
 - CD4
 - CD8
 - CD34
- To enhance the reconstitution of the immune system following an allogeneic HSCT, the recipient and donor primarily are matched for
 - Gender.
 - ABO compatibility.
 - Cytomegalovirus (CMV) antigen.
 - Human leukocyte antigens (HLAs).
- A nonmyeloablative as compared to a myeloablative HSCT would involve administration of chemotherapy and/or radiotherapy resulting in
 - Severe myelosuppression.
 - Lower incidence of GVHD.
 - A longer inpatient hospitalization.
 - Fewer conditioning-related complications.
- The risk of GVHD increases
 - With an autologous HSCT.
 - When a donor is not related to the recipient.
 - When a donor and the recipient are siblings.
 - When a donor and the recipient are identical twins.
- Mrs. Johnston has received an HSCT and is experiencing significant pancytopenia from the conditioning regimen. Which of the following cell lines would you expect to be the last to return after engraftment?
 - Platelets
 - Monocytes
 - Neutrophils
 - Red blood cells
- A patient is experiencing right upper quadrant pain, increased abdominal girth, and weight gain during the first 30 days after an allogeneic HSCT. The nurse suspects which of the following as the cause of these signs and symptoms?
 - Hepatitis
 - Constipation
 - Renal failure
 - Veno-occlusive disease (VOD)
- Mr. Harris is three weeks postallogeneic HSCT and is being treated prophylactically for GVHD. Which of the following medications might the nurse question if ordered for GVHD prophylaxis?
 - Methotrexate (MTX)
 - Tacrolimus (Prograf®, Fujisawa Healthcare Inc., Deerfield, IL)
 - Daclizumab (Zenapax®, Roche Pharmaceuticals, Nutley, NJ)
 - Cyclosporine A (Gengraf™, Abbott Laboratories, North Chicago, IL; Neoral®, Novartis Pharmaceutical Corporation, East Hanover, NJ)
- Mr. Harris has developed a maculopapular rash with pruritus on day 55 postallogeneic HSCT. The nurse would expect the primary differential diagnosis for this condition to be
 - Infection.
 - Drug reaction.
 - Acute GVHD.
 - Radiation dermatitis.
- Mr. Harris has biopsy-proven grade IIB acute GVHD of the gut and skin. The initial nursing care plan would include teaching the patient about side effects associated with
 - Steroid therapy.
 - Monoclonal antibodies.
 - Metronidazole (Flagyl®, Pharmacia Corporation, Chicago, IL).
 - Loperamide (Imodium®, McNeil Pharmaceuticals, Ft. Washington, PA).
- The nurse caring for a patient with acute liver GVHD notices that the patient has received six days of methylprednisolone at a dose of 2 mg/kg. The most important parameter for the nurse to monitor when a patient is receiving long-term, steroid treatment is
 - Vital signs.
 - Fluid status.
 - Platelet count.
 - Abdominal girth.

Answers

Question 1: The correct answer is choice a, Mr. Williams, a 23-year-old with acute leukemia. Patients with acute leukemia usually

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