

HEMATOLOGICAL CANCER CASES

Case #1

Case #2

Hematological Cancer Case 1

(Multiple Myeloma)

Jacques is a 56-year-old man who presents with a two-week history of left thigh pain as well as a two-to-three-month history of fatigue. His physical examination is normal.

His CBC reveals the following: Hgb 90, MCV 80, WBC 2.0, and PLT 60. Creatinine is 120 and serum calcium is 2.86 (N<2.62).

A bone marrow is performed revealing 40% plasma cells.

Serum immunofixation electrophoresis demonstrates a monoclonal IgG paraprotein. 24 hour urine is positive for Bence-Jones protein.

A skeletal survey reveals several lytic lesions involving the skull and a single large lesion of the proximal left femur with erosion of about 50% of the cortex.

1. Outline the management approach (including supportive measures), indicating what issue requires priority treatment.
2. What are the indications for using bisphosphonates in a patient with myeloma? Outline the dental issues concerning patients receiving bisphosphonates.
3. Would a bone scan be more sensitive than a skeletal survey in a patient with myeloma?
4. What systemic therapy is indicated in this patient?
5. When would one consider high dose chemotherapy and stem cell transplant in this patient?
6. What other parameters are required in order to stage this patient?

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Hematological Cancer Case 2

(Non-Hodgkin's Lymphoma)

Robert is a 39-year-old man who presents with a two-week history of cough, dyspnea, scrotal and bilateral lower extremity edema.

Physical examination reveals percussion dullness and decreased air entry to both lower lung fields. There is a vague sensation of a mass in the upper abdomen. There is marked edema of his lower extremities and genitalia and there is no peripheral lymphadenopathy present.

A CXR reveals bilateral pleural effusions and a widened mediastinum. A CT of the thorax, abdomen and pelvis discloses enlargement of mediastinal and retroperitoneal nodes as well as a 5 cm mesenteric mass. A PET scan is also done.

The mesenteric mass was biopsied at laparoscopy. The pathological report indicates dominant areas of a diffuse large cell lymphoma with patches of a follicular small-cleaved cell lymphoma.

A bone marrow aspirate and core biopsy is performed. This reveals a follicular small-cleaved lymphoma with no evidence of a large cell component.

1. How is the discordance in the biopsy specimen and bone marrow explained?

The patient undergoes chemotherapy with three cycles of R-CHOP. There is a dramatic improvement in his lower extremity and genital edema within 1 week of his first cycle of treatment.

However, one week before he is scheduled to return for an interval CT scan prior to his fourth cycle, he develops fullness in the right flank as well as scrotal edema. The CT reveals a significant reduction in his mediastinal lymphadenopathy and resolution of the pleural effusions but persistence of the retroperitoneal lymphadenopathy. A repeat PET scan reveals increased avidity in the mesentery and retroperitoneal regions.

His chemotherapy is changed to a salvage regimen with ESHAP.

2. Would high dose chemotherapy with a stem cell autograft be a reasonable option? What would Robert's prospects be for long-term disease control?
3. Would high dose chemotherapy with an allograft confer any advantage over a stem cell autograft?
4. What would be the significance of testicular involvement by lymphoma in this patient?
5. What options are available for preserving fertility in this patient prior to high-dose chemotherapy?
6. Discuss the role of combining rituximab with CHOP (R-CHOP) as first line treatment.
7. Briefly discuss the International Prognostic Index (IPI).

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