DISEASE MANAGEMENT

Cis-platin based chemotherapy, to which testicular cancer (TC) is exquisitely sensitive, in combination with surgery and in highly selected cases, radiotherapy, has resulted in the high cure rates seen with this disease. Careful staging at diagnosis, adequate early treatment based on a multidisciplinary approach, rigorous follow-up and adequate initiation of salvage therapies are critical to successful outcomes.

Stage I germ cell tumours:

**GERM CELL NEOPLASIA “IN SITU”:** If the contralateral testis is normal, management options include orchidectomy or close observation, as the five-year risk of developing TC is 50%. In a patient with a solitary testis, local radiotherapy (18-20 Gy in fractions of 2 Gy) should be considered.

**SEMINOMA GERM CELL TUMOUR CLINICAL STAGE I:**
Approximately 15% patients have subclinical metastatic disease, usually in the retroperitoneum, and will relapse after orchidectomy alone. Adjunctive treatment decisions should be based on thorough discussions with the patient, incorporating potential advantages and disadvantages, as well as individual patient circumstances.

**NON-SEMINOMATOUS GERM CELL TUMOURS CLINICAL STAGE I:**
Management options comprise surveillance, adjuvant chemotherapy or retroperitoneal lymph node dissection. Overall, approximately 70% are cured with orchectomy alone. In those with the high-risk feature lymphovascular invasion (LVI), relapse occurs in 50% vs 15% in those without LVI.

Metastatic germ cell tumours:

The first-line treatment of metastatic GCTs depends on:
- The histology of the primary tumour
- Prognostic groups
- Serum tumour marker decline during the first cycle of chemotherapy in poor-prognosis patients.

**Seminoma clinical stage IIA and B**

**Clinical stage IIA**
- Preferred: Chemotherapy 5 x BEP or 4 x EP if contraindications to bleomycin.
- Alternative: Radiotherapy 2 Gy x 15 to a target dose of 30 Gy to para-aortic and iliacal nodes; and 25 Gy to retroperitoneum.

**Clinical stage IIB**
- Preferred: Chemotherapy 2 Gy x 15 to a target dose of 45 Gy to para-aortic and iliacal nodes; and 2 Gy x 5 to retroperitoneum.
- Alternative: Radiotherapy 2 Gy x 15 to a target dose of 50 Gy to para-aortic and iliacal nodes; and 2 Gy x 5 to retroperitoneum.

**Stage II A non-seminoma**

**Chemotherapy**
- According to IGCCCG risk groups.
- NS-RPLND or chemotherapy.

**Follow-up after 8 weeks**
- Residual tumour
- Follow-up interval (every 3 months).
- 5 cycles BEP + RT if residual.
- NS-RPLND or chemotherapy.

**Stage III**

**GEOMETRICALLY PROGRESSIVE**

**Follow-up after 6 weeks**
- Orchiectomy
- BEP
- NS-RPLND

**Further follow-up**
- Therapy: NS-RPLND

**Stage IVA**

**Follow-up after 12 weeks**
- Orchiectomy
- Radiotherapy
- BEP
- NS-RPLND

**Further follow-up**
- Therapy: NS-RPLND

**Stage IVB**

**Follow-up after 12 weeks**
- Orchiectomy
- Radiotherapy
- BEP
- NS-RPLND

**Further follow-up**
- Therapy: NS-RPLND

**Recurrent**

**Follow-up after 6 weeks**
- Orchiectomy
- Radiotherapy
- BEP
- NS-RPLND

**Further follow-up**
- Therapy: NS-RPLND

**Evaluation**

- TNM staging
- Serum tumour marker monitoring

**Cisplatin, etoposide, bleomycin (BEP) regimen (interval 21 days)**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dosage</th>
<th>Duration of cycles</th>
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</thead>
<tbody>
<tr>
<td>Cisplatin</td>
<td>20 mg/m²</td>
<td>Days 1-5</td>
</tr>
<tr>
<td>Etoposide</td>
<td>100 mg/m²</td>
<td>Days 1-5</td>
</tr>
<tr>
<td>Bleomycin</td>
<td>30 mg</td>
<td>Days 1, 8, 15</td>
</tr>
</tbody>
</table>

*B, efficacy.

**Metastatic disease (stage II C and III)**

In cases of life-threatening disseminated disease, chemotherapy should commence immediately, particularly when the clinical picture supports TC. Orchidectomy can be delayed until clinical stabilisation occurs or subsequently be performed in combination with resection of residual lesions.

Cisplatin, etoposide, bleomycin (BEP) regimen (interval 21 days)