B-cell Chronic Lymphocytic Leukaemia (B-CLL)

Disclaimer

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Background – About B-cell Chronic Lymphocytic Leukaemia (B-CLL)

B-CLL is one of the chronic lymphoproliferative disorders, characterised by a progressive accumulation of functionally incompetent lymphocytes, which are monoclonal in origin.

Early stage B-CLL:
- is a low grade B-lymphoproliferative disorder.
- is the most common type of adult leukaemia and is mainly found in those aged older than 50 years (median 65 years).
- has a low risk of disease progression in the next 5 years.
- has a median survival of > 12 years.
- does not require treatment unless there is evidence of advanced or progressive disease.
- usually progresses slowly with increasing lymphocytosis, bone marrow involvement with cytopaenias, lymphadenopathy, hepatomegaly, and splenomegaly. Other complications of B-CLL include:
  - autoimmune haemolytic anaemia.
  - immune thrombocytopenia.
  - hypogammaglobulinaemia with recurrent respiratory tract infections.
  - herpes zoster.
  - transformation to high grade disease.

Assessment

1. Suspect B-CLL if persistent lymphocytosis with or without cytopaenia in an otherwise well patient. Anaemia or thrombocytopenia may not be present in early B-CLL.

2. History – check for:
   - unexplained fever.
   - weight loss, (e.g. > 10% in 6 months).
   - night sweats.
   - increased or unexplained bleeding or bruising.
   - significant fatigue.

3. Examination – check for:
   - lymphadenopathy in axillae, groin, and neck.
   - hepatomegaly and splenomegaly.

4. Investigations – if persistent lymphocytosis > 5 x 10⁹/L for greater than 3 months, request flow cytometry immunophenotyping.

Management

Practice Point

Early disease requires no treatment

Do not refer patients for treatment for B CLL unless there is evidence of advanced or progressive disease.
1. Request **urgent or routine haematology referral** if:
   - significant symptoms (e.g. night sweats, significant weight loss, extreme fatigue), after excluding other causes such as infection.
   - disfiguring lymphadenopathy or hepatosplenomegaly.
   - examination shows disease in 3 or more of the 5 sites, e.g. axillae (counted as one), groin (counted as one), neck, liver, and spleen.
   - blood tests show cytopenias or haemoglobin or platelets fall to 100 or lower.
   - lymphocyte count doubles in < 6 months.
   - lymphocyte immunophenotyping confirms a clonal population other than B-CLL.

2. Screen for **other malignancies**.
   *Patients with B-CLL have an increased risk of other malignancies. Non-melanoma skin cancers can progress rapidly. Education regarding sun protection and frequent skin cancer checks, every 6 to 12 months, are fundamental.*
   *Consider age-appropriate screening for breast, prostate, and colon cancer.*

3. Offer influenza and pneumococcal vaccinations according to **immunisation guidelines**. Note Zostavax and other live vaccines are relatively contraindicated in CLL.

4. Advise the patient to present early if there is any infection e.g., shingles.

5. Provide **education**.
   *The word "leukaemia" can generate significant anxiety. Discuss:*
   - the benign nature of the disease in its early stage.
   - the lack of a need for treatment.
   - good prognosis.
   *For more information see the Leukaemia Foundation – Chronic Lymphocytic Leukaemia (CLL).*

6. Monitor early B-CLL in general practice, as this has a low risk of disease progression. Assess 6-monthly for the first year, then yearly if stable, or slow, asymptomatic progression. At each consultation:
   - arrange blood tests with FBE:
     - The rise of white blood cells (WBC) is less important than the development of any cytopenias, night sweats, or weight loss.
     - The absolute lymphocyte count can rise to > 200 x 10⁹/L and is not a reason in itself to start treatment.
     - The surface markers do not need to be repeated when the lymphocyte count increases.
   - ask about a history of infections, weight loss, fatigue, night sweats, enlarged lymph nodes, bruising.
   - check weight and examine for lymphadenopathy and hepatosplenomegaly.

   *Note that treatment is not required unless there is evidence of advanced or progressive disease.*

7. Seek **haematology advice** if required.

**Referral**

- Request **urgent or routine haematology referral** if:
  - significant symptoms (e.g. night sweats, significant weight loss, extreme fatigue), after excluding other causes such as infection.
disfiguring lymphadenopathy or hepatosplenomegaly.

- examination shows disease in 3 or more of the 5 sites, e.g. axillae (counted as one), groin (counted as one), neck, liver, and spleen.
- blood tests show cytopenias or haemoglobin or platelets fall to 100 or lower.
- lymphocyte count doubles in < 6 months.
- lymphocyte immunophenotyping confirms a clonal population other than B-CLL.

- Seek haematology advice if required.

Information

For health professionals

Further information

- Cancer Council Australia – Leukaemia
- UK CLL Forum

For patients

Leukaemia Foundation – Chronic Lymphocytic Leukaemia (CLL)

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