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**Lymphocytosis**

**Presentation**

Definition

Lymphocyte count >4.5 x 109/L

**Clinical Findings**

Types

* Reactive: secondary to another cause. The lymphocyte count often less than 10 x 109/L. If associated medical condition resolves the lymphocyte count should normalise within 2 months.
* Clonal lymphocytosis: secondary to an acute or chronic lymphoproliferative disorder / leukaemia.

**Causes**

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| Reactive Causes | Clonal Causes |
| Viral InfectionsEBV, CMV, mumps, VZV, influenza, rubella, hepatitis, roseola | Lymphoproliferative disordersChronic lymphocytic leukaemia (CLL), non-Hodgkin’s lymphoma (NHL). |
| Other infectionsBacterial infections, toxoplasma Gondii, rickettsial infection, pertussis, tubercullosis | Benign Haematological abnormalitiesMonoclonal B-cell lymphocytosis (MBL) = precursor stage of CLL |
| OthersStress e.g. myocardial infarction / seizure, vigorous exercise, trauma, rheumatoid disease, post-splenectomy | LeukaemiasLymphocytic leukaemia e.g. ALL / PLLLarge granular lymphocyte (LGL) leukaemia |

**History**

Important Features include:

* Any recent infections
* PMHx: rheumatoid disease, splenectomy
* Travel history

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**Symptoms and Signs**

* Are there constitutional symptoms suggestive of malignancy (fever, weight loss, night sweats)
* Assess for lymphadenopathy and hepatosplenomegaly

**Investigations**

* For reactive lymphocytosis addressing the primary cause is key. Repeating the FBC in 2-8 weeks is reasonable as most cases of reactive lymphocytosis gradually settle down.
* In the early stages when the lymphocytes are <10 x109/L it can be difficult to distinguish between a malignant and reactive lymphocytosis. Serial blood counts may be necessary e.g. monitoring the FBC every 3-6 months.

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| Initial investigations | Other further investigations |
| FBC | Lactate dehydrogenase |
| Film | Immunoglobulins |
| CRP | Monospot / CMV serology (if suspected viral cause) |
|  | Immunophenotyping (if advised by haematology) |

**Referral**

Indications for referral

Advice regarding management is often given in the film comments by one of the haematology team.

**Urgent** referral is advised:

* B symptoms (drenching night sweats, weight loss >10% fevers >38)
* Bone marrow suppression (Hb<10g/dL, Platelets <100 x 109/L, neutrophils <1 x 109/L)
* Progressive lymphadenopathy or splenomegaly
* Presence of blast forms on the blood film

**Routine** Referral:

* Isolated lymphocytosis >30 x109 in a patient without the above signs or symptoms.

**References**

1. Incidental finding of lymphocytosis in an asymptomatic patient. BMJ 2009; 338: b2119.
2. Royal United Hospital Bath clinical haematology guidelines: lymphocytosis.