

「角聲癌症關懷」電話癌症教育講座

白血病和淋巴瘤的治療新知

時間: 5/18/2009 星期一
加州時間下午7點到8點

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Leukemia

白血病/血癌

Introduction

- Cancer of blood-forming tissues 造血組織的癌症
 - Bone marrow 骨髓
 - Lymphatic system 淋巴系統
- Bone marrow produces a large number of abnormal white blood cells that don't function properly 骨髓裡產生不正常的白血球
- Affects children and adults 小孩大人都可能有
- Treatment can be complex and intensive; may involve stem cell transplant 治療過程很複雜

Signs and Symptoms

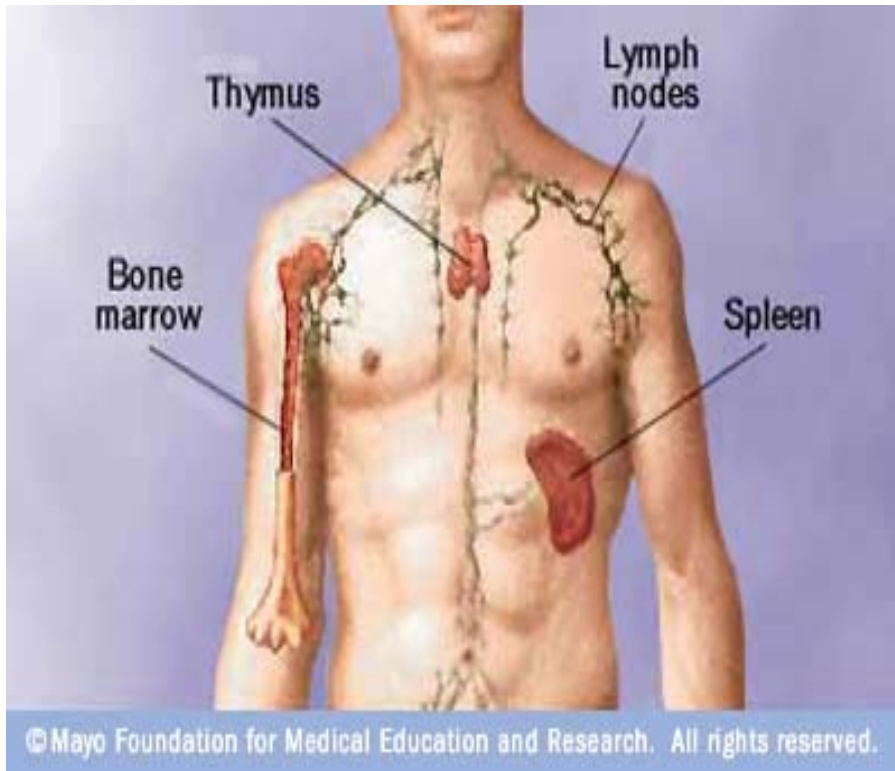
- Common symptoms 常見的徵狀
 - Fevers or chills 發燒發冷
 - Persistent fatigue, weakness 疲倦
 - Frequent infections 慣性發炎
 - Loss of appetite or weight 沒胃口, 體重下降
 - Swollen lymph nodes, enlarged liver or spleen 淋巴腺, 肝臟, 脾臟腫大
 - Easy bleeding or bruising 流血, 瘀血
 - Shortness of breath when you are physically active 喘氣
 - Tiny red spots on the skin 皮下小出血點
 - Excessive sweating, especially at night 夜裡盜汗
 - Bone pain or tenderness 骨頭疼痛
- May resemble flu or other common illnesses 與流感徵狀類似
- Severity depends on number of abnormal blood cells and where they collect

Classification

分類

- Speed of progression
 - Acute leukemia 急性白血病
 - Abnormal blood cells are immature (blasts, 裂殖胞)
 - Can't carry out normal function
 - Multiply rapidly
 - Chronic leukemia 慢性白血病
 - Abnormal blood cells are more mature 比較成熟的細胞
 - Can function normally for some time
 - Multiply slowly
- Type of cells affected
 - Lymphocytic leukemia: 淋巴性白血病
 - Abnormal cells are lymphoid cells (lymphocytes) which form the lymphatic system (lymph nodes, spleen, tonsils)
 - Myelogenous leukemia: 骨髓細胞性白血病
 - Abnormal cells are myeloid cells, which develop into red blood cells, white blood cells and platelets

淋巴系統



骨髓細胞

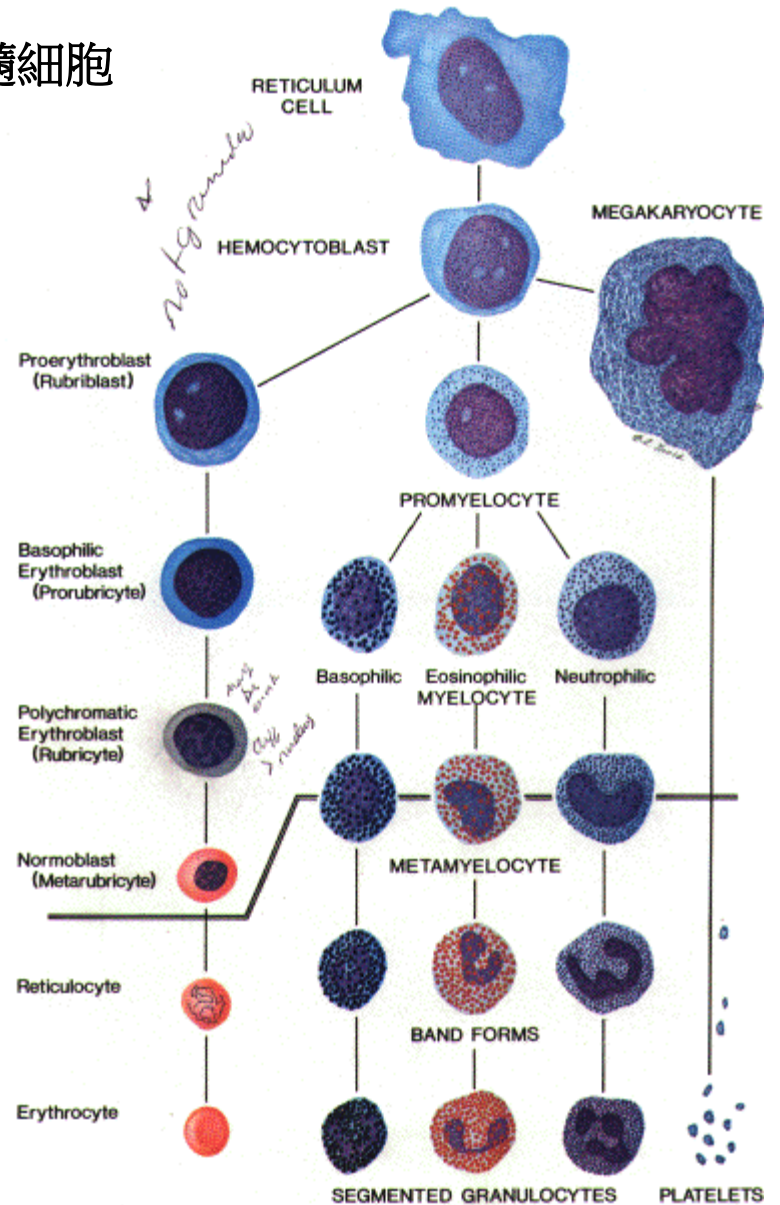


Figure 5-15 See legend on opposite page

Major Types

白血病的種類

- Acute myelogenous leukemia (AML) 急性骨髓細胞性白血病
 - Most common
 - Affects both children and adults
- Acute lymphocytic leukemia (ALL) 急性淋巴性白血病
 - Most common type young children; 75% of all childhood leukemias
- Chronic myelogenous leukemia (CML) 慢性骨髓細胞性白血病
 - Mainly affects adults
 - Associated with Philadelphia chromosome t(9;22) (BCR-ABL)
 - Slow growing phase followed by a rapid growth phase
- Chronic lymphocytic leukemia (CLL) 慢性淋巴性白血病
 - Common in adults; almost never occurs in children
 - More common in Jewish of Russian or Eastern European descent
 - May have no symptoms for years without treatment
- Others

Causes

原因

- Unclear 不明. 基因和環境因素導致不正常細胞的發展
- Combination of genetic and environmental factors that lead to abnormal development and growth
- Results in shortage of normal blood cells 正常細胞缺乏導致
 - Infection 感染
 - Bleeding 流血
 - Anemia 貧血
- Abnormal cells may infiltrate organs 不正常細胞侵襲
 - Liver 肝臟
 - Spleen 脾臟
 - Brain 腦部
 - Skin 皮膚
 - GI tract 腸胃系統

Risk Factors

危險因素

- Prior cancer therapy
 - Chemotherapy 化療
 - Radiation therapy 電療
 - Usually occurs many years after therapy
- Genetics
 - Down syndrome increases risk 唐氏症
 - Fanconi's anemia 范康尼貧血
- Exposure to radiation and certain chemicals
 - Survivors of atomic bomb or nuclear accidents 核能
 - Benzene 苯
- Many people get leukemia without risk factors, many with risk factors do not get leukemia

When to Seek Medical Advice

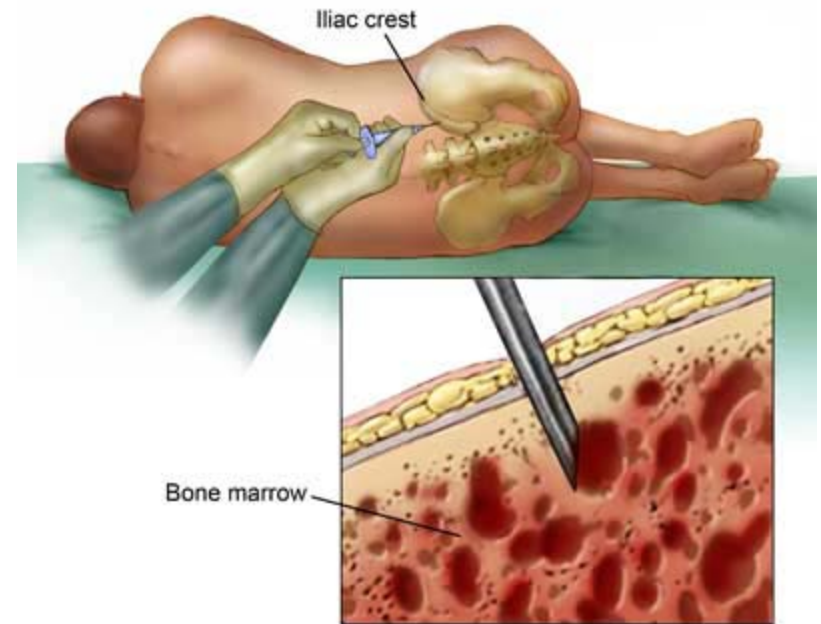
何時就醫

- Persistent fatigue, weight loss, easy bruising, bleeding, swollen lymph nodes or fever
- 持續的疲倦, 體重下降, 青腫, 流血, 淋巴腺腫大, 發燒.

Diagnosis

診斷

- Few patients have elevated white blood cell count on routine blood tests without symptoms
- Diagnostic procedures
 - Blood smear examination to look for abnormal cells 血塗抹檢查
 - Immunophenotype to determine the cell type 血球計數
 - Cytogenetic analysis to look for changes in chromosomes 染色體檢查
 - Bone marrow aspiration and biopsy 骨髓穿刺



Treatment

治療

- Chemotherapy 化學治療
 - Main stay of therapy for leukemia
 - Single or combination of drugs
 - Pills or infusion into veins or cerebrospinal fluid
- Biological therapy or immunotherapy 生物或免疫治療
 - Substances that bolster your immune system's response to cancer
- Kinase inhibitors 催化酶抑制劑
 - For leukemias with abnormal tyrosine kinases (CML, some ALL and AML)
 - Gleevec, Sprycel, Tasisign
- Other drug therapy
 - ATRA 視黃醇類
 - Arsenic 砷
- Radiation therapy 電療
- Stem cell (bone marrow) transplant 幹細胞移植
- Clinical trials

Hodgkin's & Non-Hodgkin's Lymphoma 淋巴瘤

Introduction

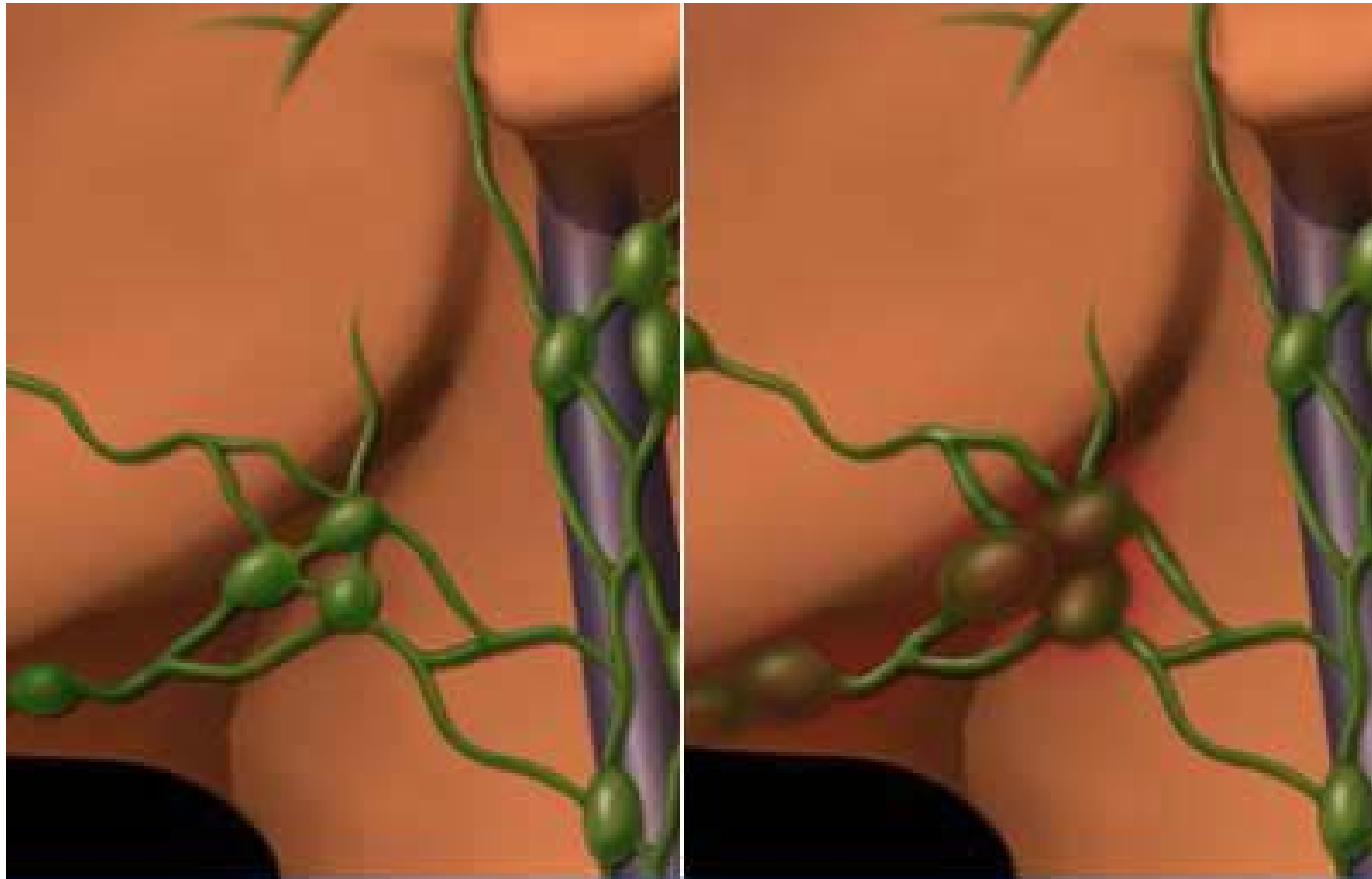
- Cancer of the lymphatic system 淋巴系統的腫瘤
 - Abnormal cells in the lymphatic system grows and may spread beyond the lymphatic system
 - Body's ability to fight infection is compromised 抵抗力衰弱
- Hodgkin's is named after Thomas Hodgkin, a British physician who first described the disease in 1832
- Both Hodgkin's and non-Hodgkin's are highly treatable cancer 淋巴癌是很容易治療的癌
- Non-Hodgkin's is 5x more common than Hodgkin's

Signs & Symptoms

- Many initial signs & symptoms are similar to those of the flu 早期徵兆和流感很相近
 - Fever 發燒
 - Fatigue 疲倦
 - Night sweats 夜裡盜汗
- Common symptoms
 - Painless swelling of lymph nodes in neck, armpits or groin 淋巴腺腫大
 - Unexplained weight loss, >10% of body weight 體重下降
 - Loss of appetite 失去食慾
 - Itching 癢
 - Abdominal pain or swelling 肚子腫脹
 - Chest pain, coughing or difficulty breathing 胸部疼痛,咳嗽,呼吸困難

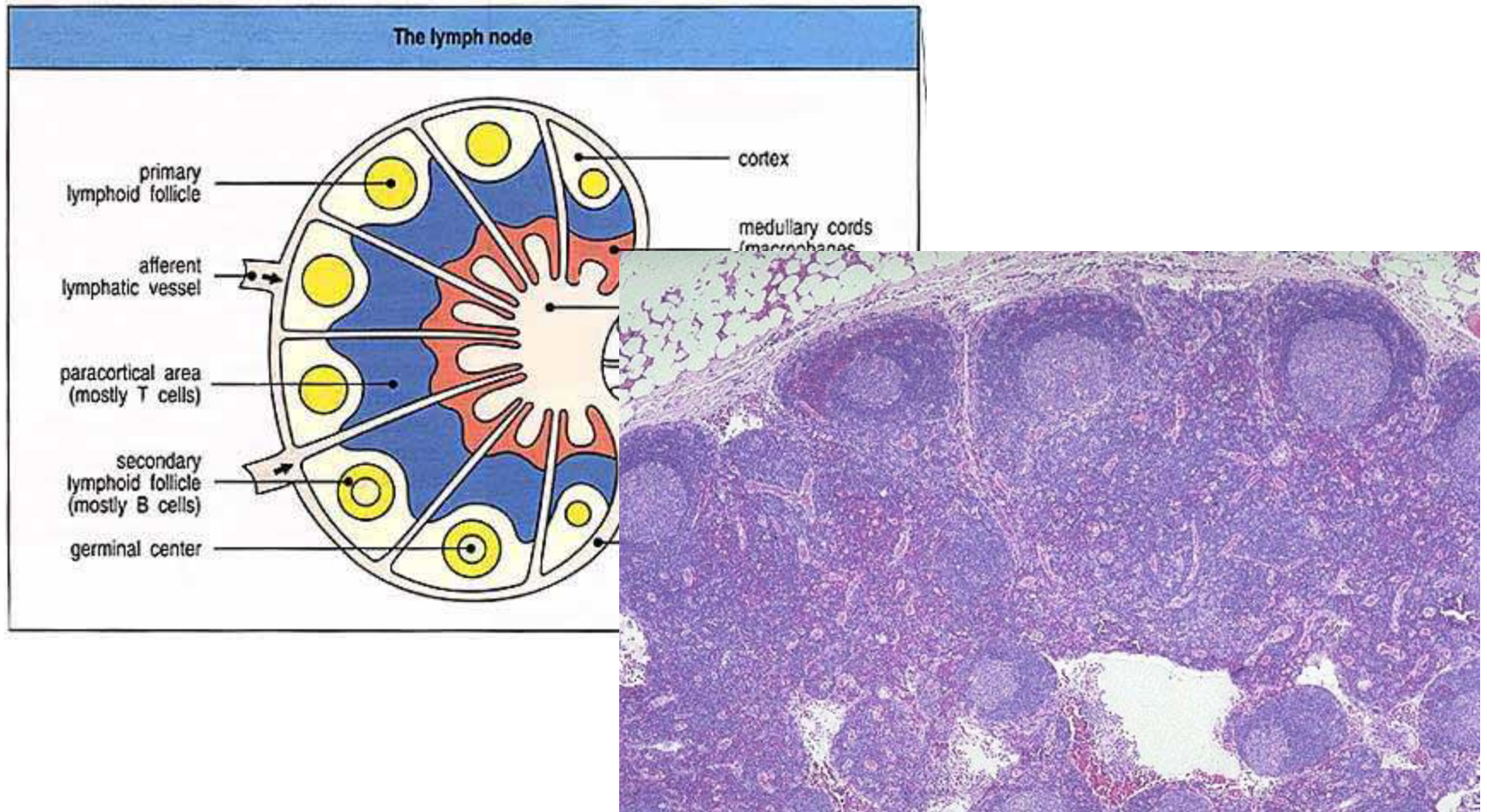
Normal and Swollen Lymph Nodes

正常與腫大的淋巴腺



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Normal Lymph Node

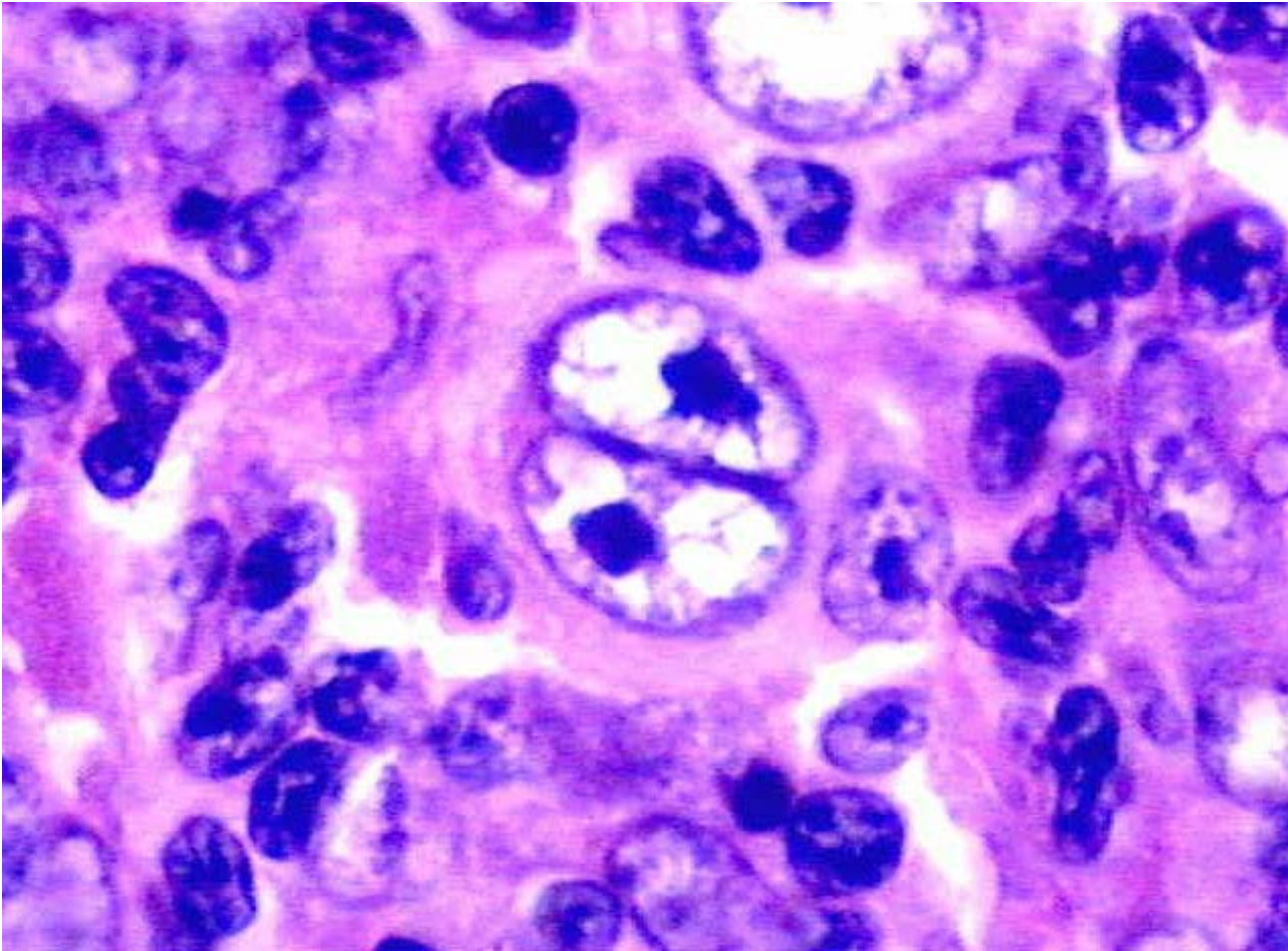


Causes

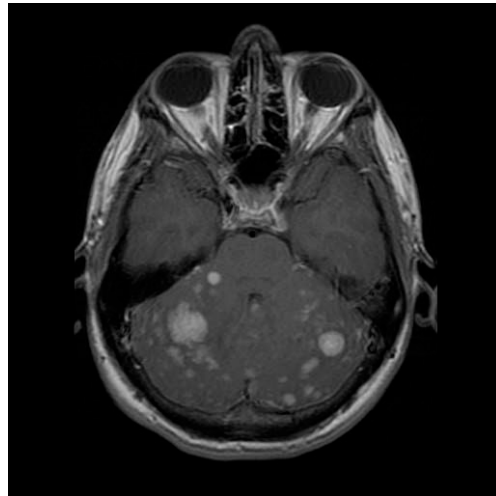
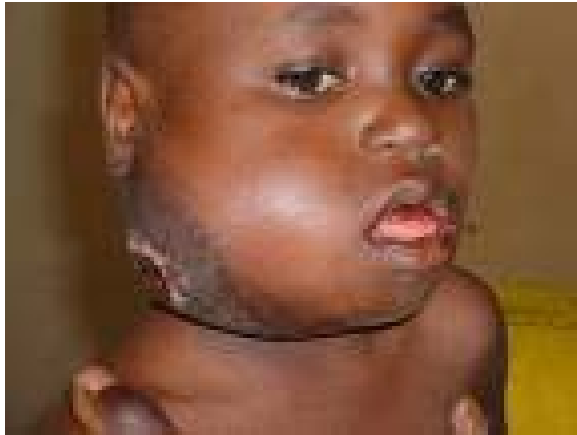
原因

- Exact cause is unknown 不明
- Hodgkin's lymphoma
 - Abnormal B cells in the lymphatic system called Reed-Sternberg cells 不正常的B淋巴球
 - Commonly begins in the upper body and spread contiguously from one lymph node to the next, and eventually any part of the body 傳遞式的擴散
- Non-Hodgkin's lymphoma
 - Abnormal B or T cells due to activation of certain genes; 85% B cells, 15% T cells 不正常的B或T淋巴球
 - Generally spreads throughout the body 全身的擴散

Reed-Sternberg Cell in Hodgkin's Lymphoma



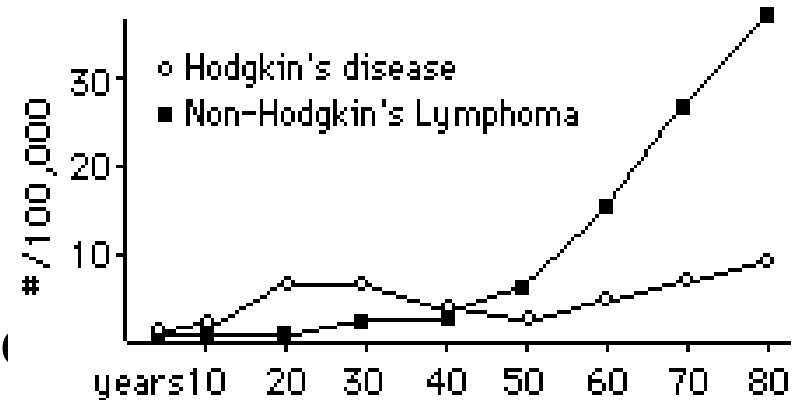
Lymphoma in Various Places



Risk Factors

危險因素

- Age 年齒
 - 15-40
 - >55
- Family history 家庭史
- Males slightly more likely (Hod)
- Infection 某些感染
 - Epstein-Barr virus (Hodgkin's)
 - Helicobacter pylori (non-Hodgkin's)
 - Hepatitis C (non-Hodgkin's)
- Chemicals
 - Pesticides 殺蟲劑
 - Herbicides 殺草劑
- Compromised immune system 免疫系統衰弱

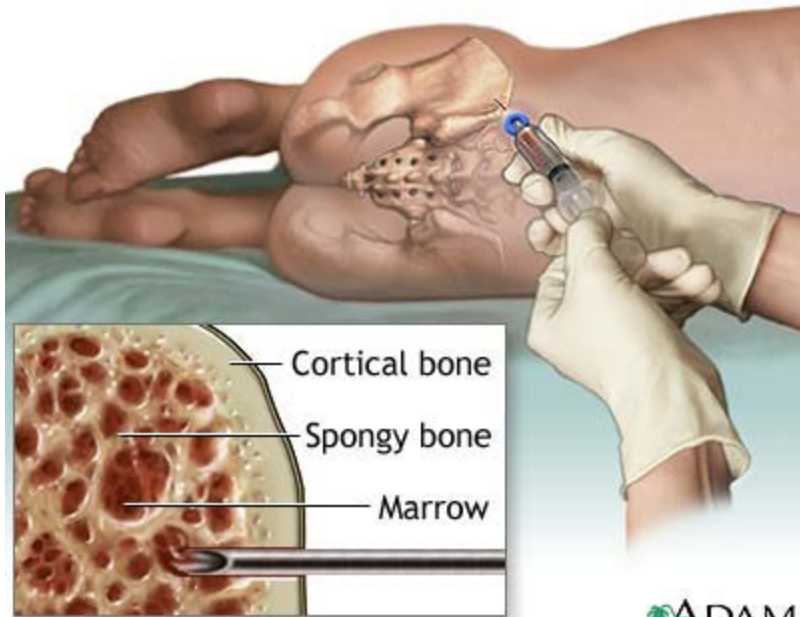


Diagnosis

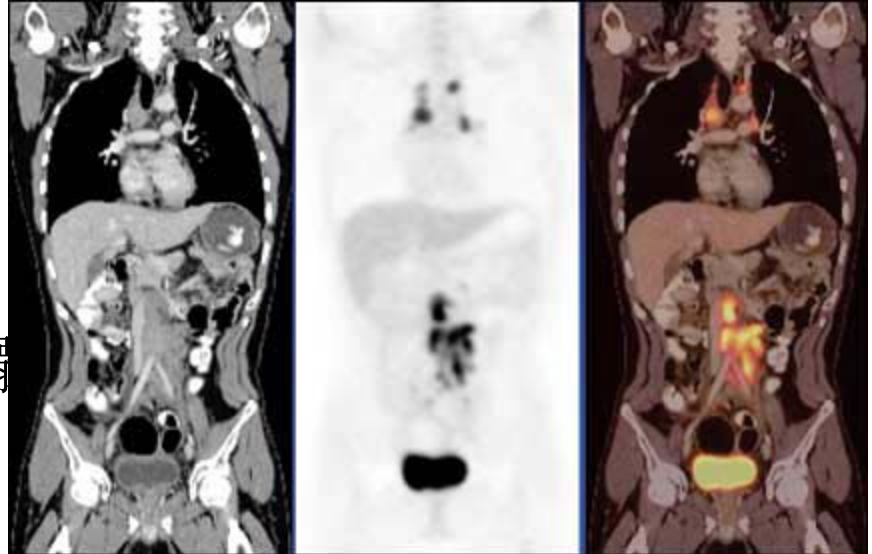
診斷

Difficult to diagnose as early
onset of other disorders 早期

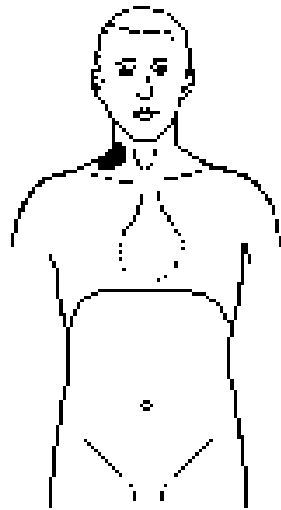
Lymph node is needed to
do biopsy 線切片



- Gallium or PET scans
- Bone marrow biopsy 骨髓
- Blood tests

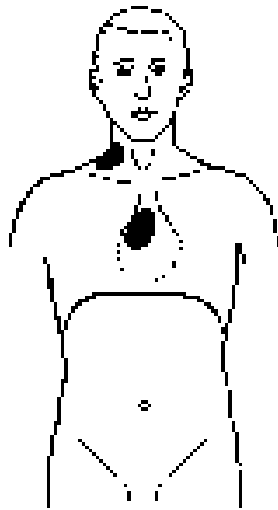


Staging



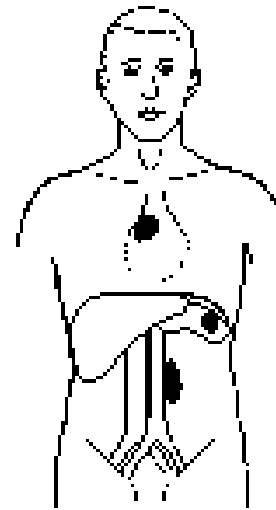
Stage I

single lymph node region
or single extranodal site



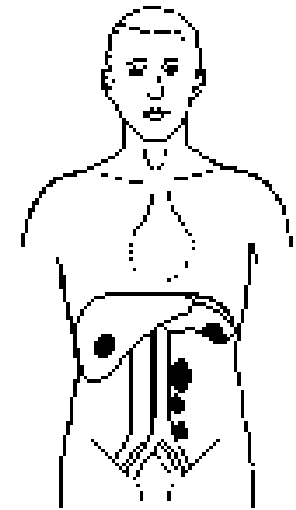
Stage II

two or more sites, same side
of diaphragm or \bar{c} contiguous
extranodal site (Ile)



Stage III_s

both sides of diaphragm or \bar{c}
spleen (III_s) or contiguous
extranodal site (III_e)



Stage IV

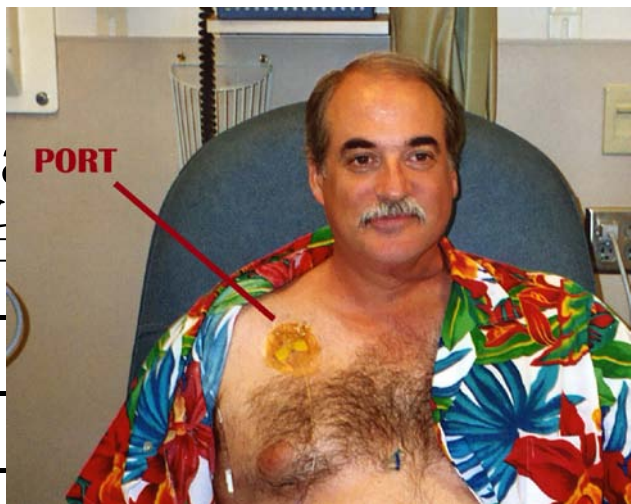
extranodal sites \pm
nodal disease

Stage subdivision: A-asymptomatic B-unexplained weight loss >10% in 6m and/or fever and/or night sweats

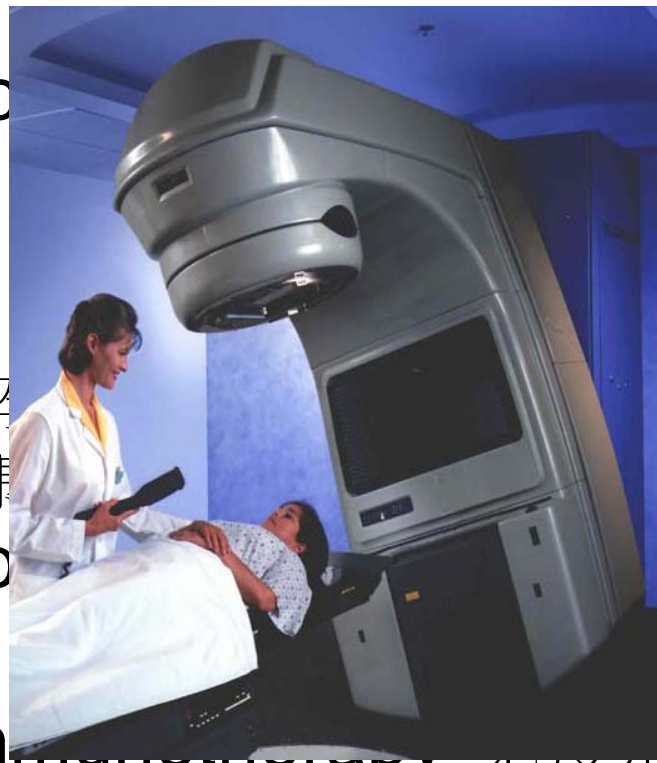
Treatment

治療

- F
治



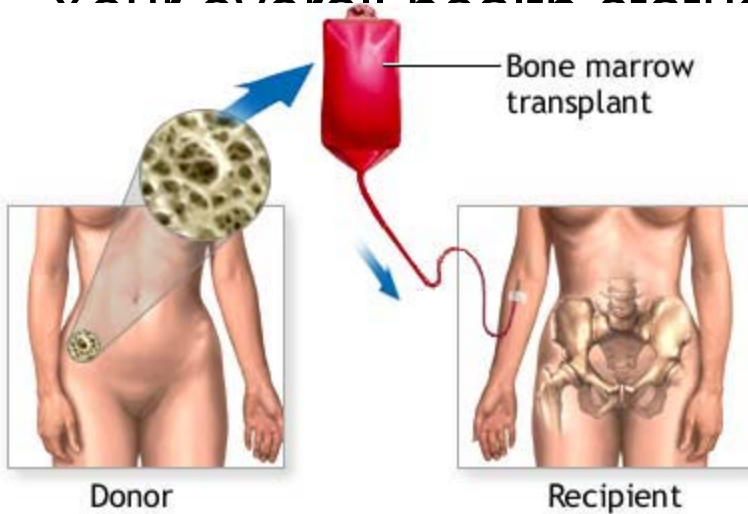
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Your overall health status

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健康

- F
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transplant 幹細胞移植

Donor bone marrow cells repopulate recipient bone marrow