

Lecture Notes

Examining the Reticulo Endothelial System

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Main Symptoms

Anaemia

Haemorrhage

Infection

Main Signs

Lymph node enlargement

Hepatosplenomegaly

Signs in the skin, mouth & fundus
of eye

Anaemia

- Symptoms of low O₂: asthenia, tiredness, dyspnoea, dizziness *or* signs of CCF
- Signs of anaemia: pallor of: skin, palms, nails, lips, conjunctiva & tongue

Haemorrhage

Internal: melena, epistaxis, haemoptysis, haematemesis, haematuria, menorrhagia, retinal haems

External: petechiae, purpura, ecchymoses

Infections

Skin:	boils, ulcers, phlebitis
Muscle:	pyomyositis
Mouth:	hypertrophy gums, bleeding, ulcers, gingivitis, tonsillar abscess
Respiratory:	sinusitis & pneumonia
Genitourinary:	urinary tract infection
Gastrointestinal:	typhoid, enteritis etc
CNS:	meningitis
Blood:	bacteraemia, septicaemia

Lymph Nodes

Site & Size: where they are & how large (?>1cm)

Skin/Surface: colour, shiny, discharging pus

Shape: rounded, regular *or* irregular

Consistency: hard, firm, soft, fluctuant

Tenderness: inflammation

Mobility & Fixation: attachment to skin & adjacent tissues

Sites

Head & Neck:	Waldeyer's external ring, cervical, supraclavicular fossa (SCF)
Chest:	SCF & axillae
Abdomen:	SCF, (Troisier's Sign, Virchow's Node), inguinal
Genitalia:	inguinal
Limbs:	<i>Legs:</i> femoral & inguinal <i>Arms:</i> axillae

Head & Neck

Waldeyer's External Ring: submental, submandibular, pre & post auricular & suboccipital nodes

Z line of Ellis: submental, submandibular, cervical: border of sternomastoid & supraclavicular fossa (**SCF**)

Waldeyer's External Ring



Head & Neck

Examine from behind

Palpate following

Submental nodes

Submandibular nodes

Pre auricular nodes

Cervical nodes: (*anterior border of sternomastoid*)

Supraclavicular nodes (*anterior triangle*)

Lymph nodes

Submental



Submandibular



Lymph nodes 2

Preauricular



Postauricular



Cervical nodes: (*anterior border of sternomastoid*)



Supraclavicular fossa



Head & Neck

Examine from in front

Palpate following

Supraclavicular fossa: *(posterior triangle)*

Cervical nodes: *(post border of sternomastoid)*

Post auricular nodes

Suboccipital nodes

Scalene node: *(palpate deeply behind clavicular head of sternomastoid)*

Supraclavicular fossa



Cervical nodes: *(post border of sternomastoid)*



Suboccipital nodes



Scalene node



Lymph Nodes

Axilla: 5 areas

Axilla: 4 walls (*medial, lateral, anterior, posterior*) & apex

Sit/stand in front: hold pt's left hand in your left hand

Abduct pt's arm: 30-45 degrees from the side

With your free or right hand: palpate left axilla starting with medial wall; palpate all 5 areas in turn

Repeat the manoeuvre: for other side: *changing hands*

Axilla left



Axilla right



Lymph Nodes

Inguinal

Inguinal chain: palpate horizontally along the lower border of the inguinal ligament

Femoral nodes: palpate longitudinally below the medial third of inguinal ligament (*just over saphenous vein as it enters the femoral triangle*)

Epitrochlear Nodes

Support pt's right wrist: **with your left hand**

Flex pts elbow: **to 90 degrees**

Palpate epitrochlear area for nodes: **with thumb or fingers of your free or right hand**

Repeat: **for other side, changing hands**

Epitrochlear node



Epitrochlear node: feeling with thumb



Mouth: Signs

Gum hypertrophy: acute leukaemias

Bleeding gums petechiae palate: thrombocytopenia

Ulcers in mouth: leukaemia

Candidiasis: leukaemia, aplastic anaemia & HIV

Hypertrophy of tonsils: leukaemia

Oral cavity

- Gums



Oral cavity 2

Upper palate



Frenulum



Skin: Signs

Skin pallor: **all types of anaemia**

Pruritus: **lymphomas**

Purpura *or* bleeding into skin: **thrombocytopenia**

Icterus: **haemolytic anaemias**

Ulceration over lower legs: **haemolytic anaemia**

Infections: **tinea, herpes & furunculosis**

Hepatosplenomegaly

Spleen & liver frequently enlarged: **with lymphadenopathy**

Method of examination: *see "Examination of GIT" video or powerpoint*

Causes: haematological malignancies: *lymphoma & leukaemia*

Infections: *malaria, schistosomiasis, leishmaniasis, typhoid, brucellosis, portal hypertension*

Lymphadenopathy

Malignancy: lymphoma, leukaemia, Kaposi sarcoma, metastases

Infection: HIV, TB, brucellosis

Connective Tissue Disease: rheumatoid arthritis, systemic lupus erythematosus

Key Points

- Lymph nodes (<1 cm) palpable in healthy person
- Lymphadenopathy easily missed unless examined for
- Lymph nodes best examined one site at a time comparing findings with those on the opposite side
- Lymphadenopathy may have a local cause
- Skin & oral cavity are important examination sites