



pathology/1st course.

HEAMODYNAMIC DISORDERS

Sawa University

جامعة ساوة الاهلية

College of health and medical techniques

كلية التقنيات الصحية والطبية

Department of Radiology Tech.

قسم تقنيات الاشعة والسونار

. Third Stage

المرحلة الثالثة

محاضرة رقم 9 الجانب النظري

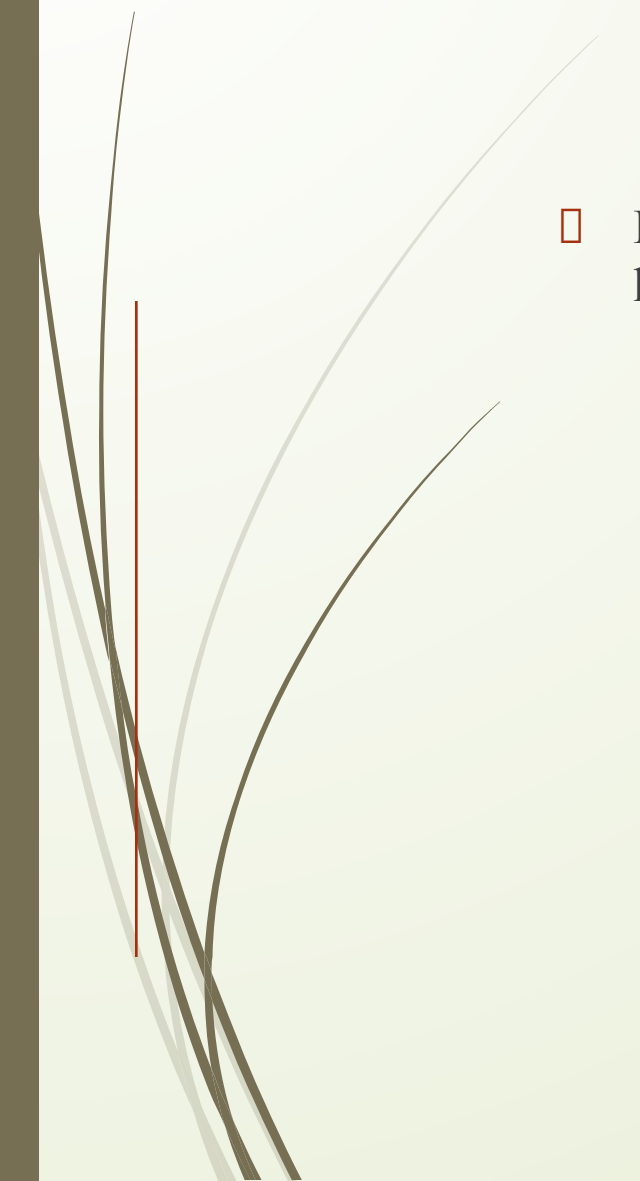
Lecture No. Sawa University Theoretical

9

تدريسي المادة : م.م. فاضل عوفي عواد

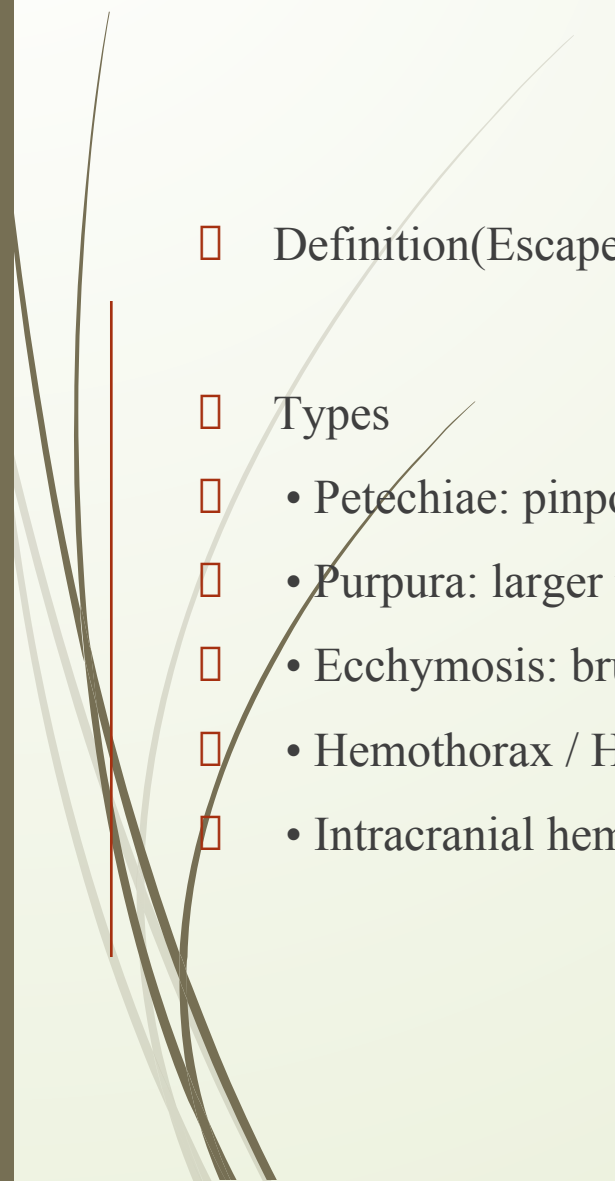


Homodynamic Disorders: Overview

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- Disturbances in blood flow and fluid balance including hyperemia, congestion, edema, hemorrhage, and hemostasis abnormalities.



Hemorrhage

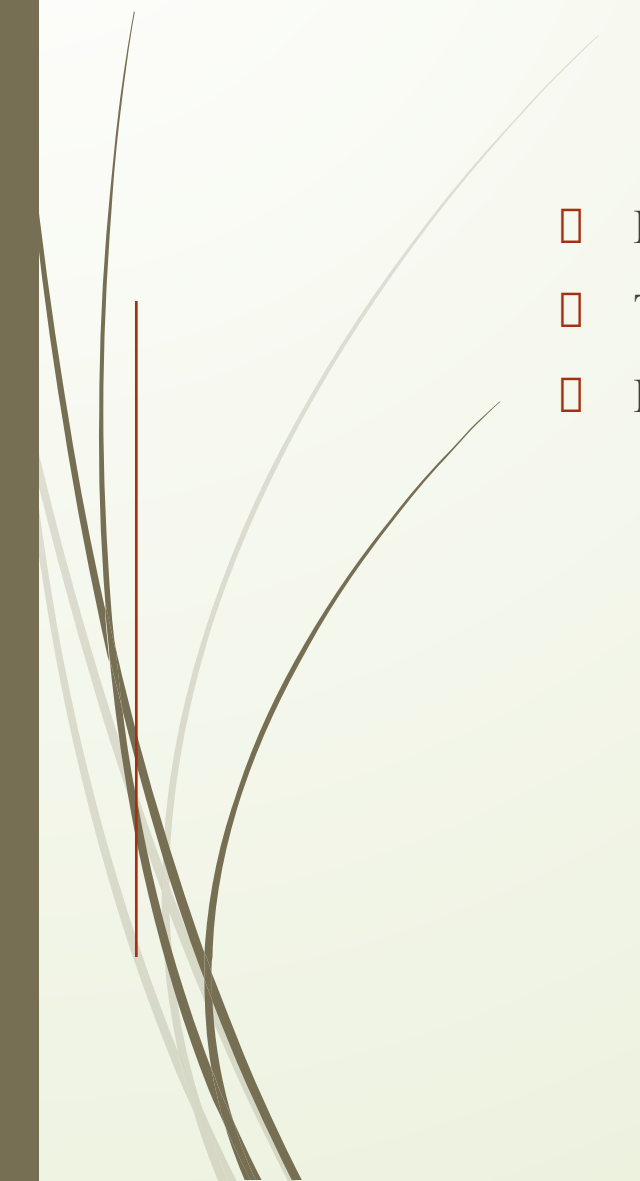


- Definition(Escape of blood from vessels into tissues or cavities).
- Types
 - • Petechiae: pinpoint bleeds
 - • Purpura: larger than petechiae
 - • Ecchymosis: bruises
 - • Hemothorax / Hemoperitoneum / Hemopericardium
 - • Intracranial hemorrhage (most dangerous)

- Causes
 - • Trauma
 - • Platelet disorders
 - • Vitamin K deficiency
 - • Clotting factor defects
 - • Vascular injury



Hemostasis and Thrombosis



- Hemostasis: Prevents bleeding.
- Thrombosis: Pathologic clot.
- Key: Endothelium, platelets, coagulation cascade.



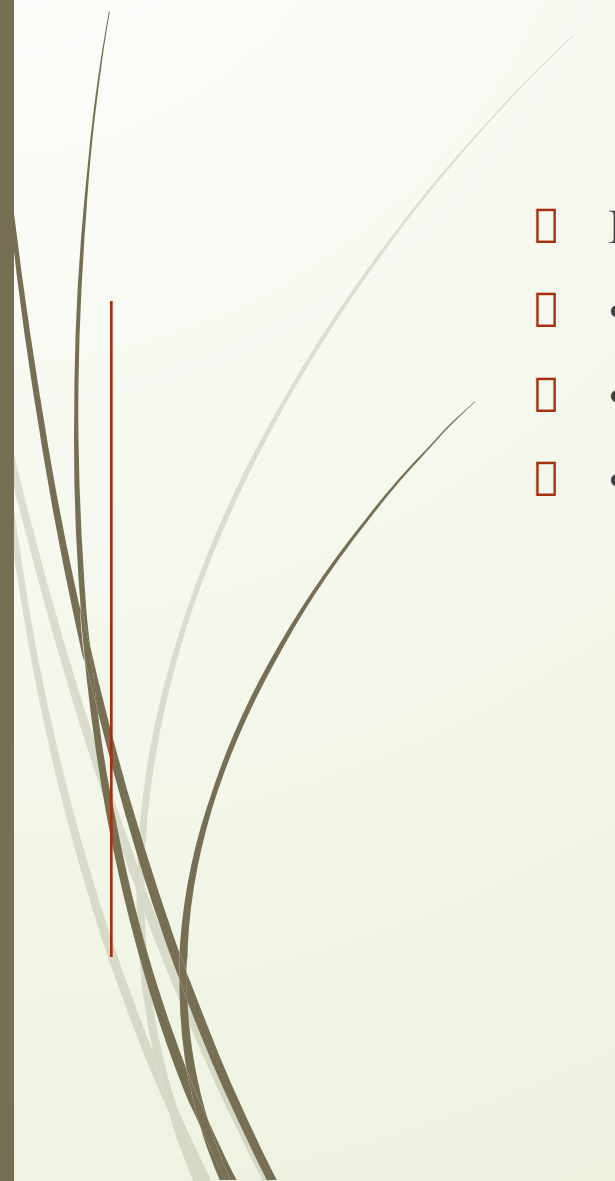
Prothrombotic Endothelium



- Injury causes:
- • ↑ Tissue factor
- • ↓ Thrombomodulin
- • ↑ PAI
- • ↑ Adhesion molecules

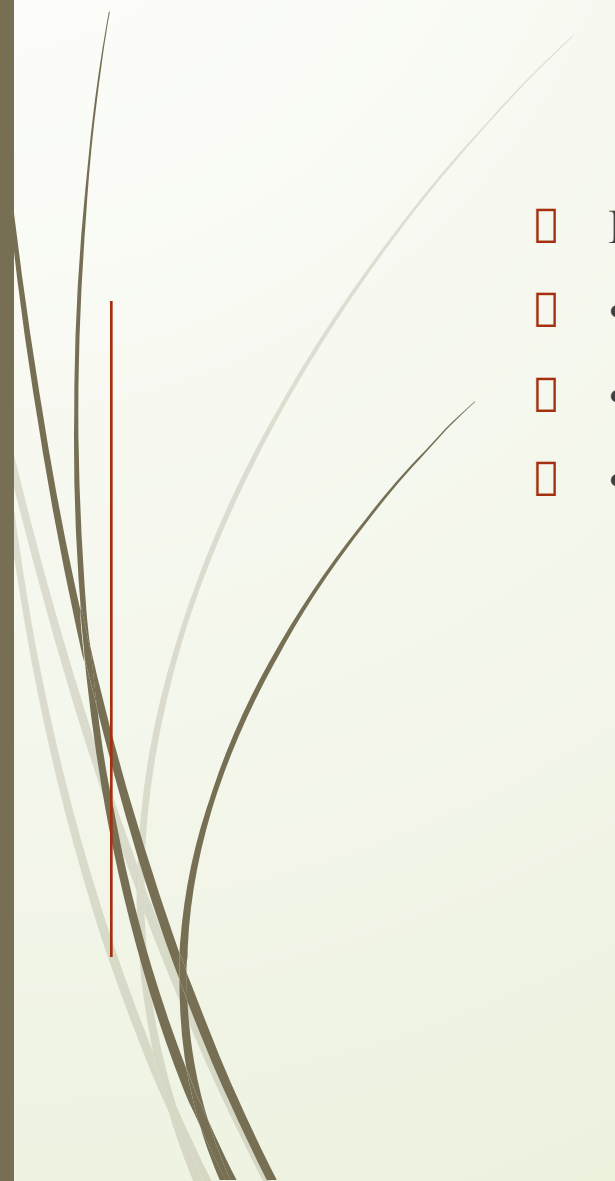


Primary Hemostasis Disorders

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- Platelet plug defects:
 - • Thrombocytopenia
 - • vWD
 - • Platelet dysfunction



Secondary Hemostasis Disorders

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- Fibrin defects:
 - • Factor deficiency
 - • Vit K deficiency
 - • Liver disease



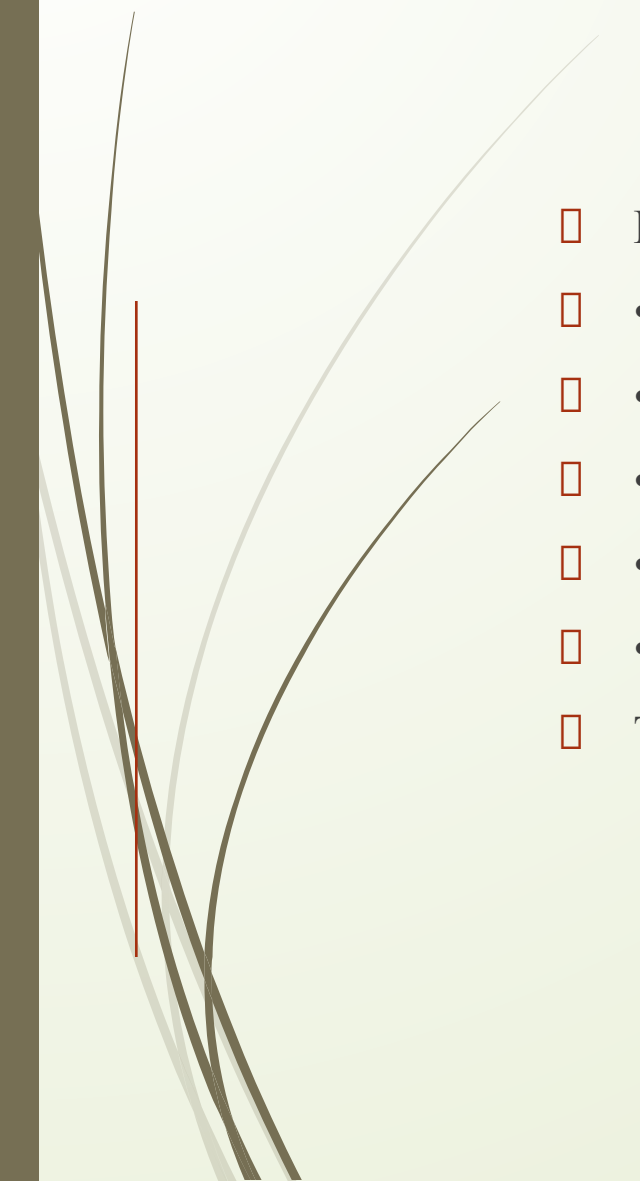
Slide Examination Guide



- Identify:
- • Hyperemia vs congestion
- • Edema
- • Hemorrhage
- • Thrombi types
- • Lung & liver congestion



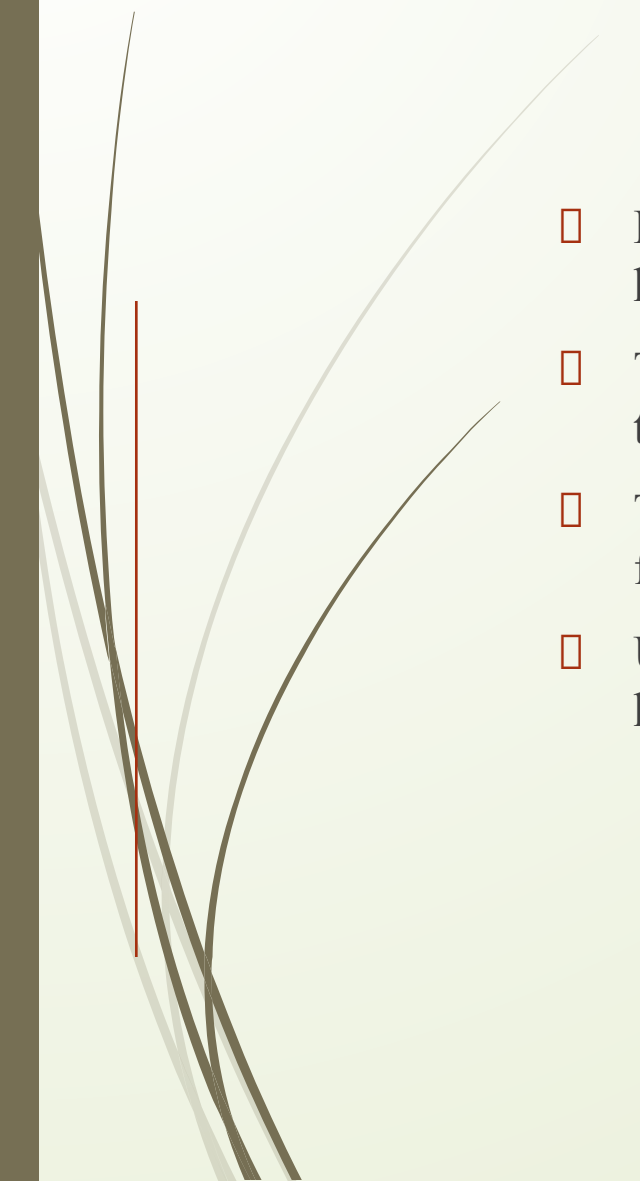
Summary



- Homodynamic disorders include:
 - • Hyperemia & Congestion
 - • Edema
 - • Hemorrhage
 - • Hemostasis & Thrombosis
 - • Primary & Secondary hemostasis disorders
- They reflect systemic disease and appear clearly on histopathology slides.



Overall Summary



- ❑ Hemodynamic disorders include abnormalities in blood flow, vascular pressure, and hemostasis.
- ❑ They manifest as hyperemia, congestion, edema, ascites, hemorrhage, hematoma, and thrombosis.
- ❑ The central pathological mechanisms involve impaired venous drainage, endothelial injury, fluid imbalance, and coagulation disturbances.
- ❑ Understanding these processes provides the foundation for interpreting cardiovascular, hepatic, pulmonary, and renal pathology.

اختبار سريع / Quiz

- ❑ 1. ما الفرق بين Hyperemia و Congestion؟
- ❑ 2. ما السبب الأكثر شيوعًا لحدوث Pulmonary edema؟
- ❑ 3. Chronic pulmonary congestion؟ ما العلامة النسيجية المميزة لـ.
- ❑ 4. Primary hemostasis؟ ما العامل الأساسي في.
- ❑ 5. في فشل القلب؟ Nutmeg liver لماذا يظهر مظهر.

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Any questions?

*Thank
You*