* Chronic pulmonary congestion : macrophages called heart failure cell
* hepatic congestion : nutmeg liver
* hyperemia ⇒ active process
* Congestion ⇒ passive process
* albumin → almost half of the total plasma protein
* hemorrhage :

① Petechiae ⇒ 1→2 mm
② purpura ⇒ 3→5 mm
③ Ecchymoss or bruises ⇒ 1→2 cm

⊛ hemoglobin → bilirubin → hemosiderin
↳ (red - blue) ↳ (blue - green) ↳ (golden - brown)

* platelets : ① disc - shape ② anucleate ③ from megakaryocyte in BM
↳ have two type of granules :
① α-granules : ① P-selectin ② - VW-factor ③ Fibrinogen
② dense (δ) granules : ① ATP ② ADP ③ serotonin ④ Ca^{++} ⑤ epinephrine

* fibrinogen cause ⇒ reversible aggregation.
* thrombin cause ⇒ irreversible aggregation.
↳ convert fibrinogen into insoluble fibrin.

* شو الهدف من عملية الـ "Clot stabilization and Resorption"؟
← اعمل plug تمنع الـ (hemorrhage)
← شو وظائف هاي الـ plug؟

① soild
② permanent
③ irreversible