

Cytoplasm → Pink

Eosin قُجِب د

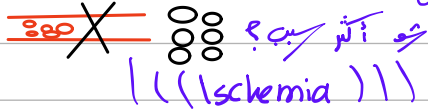
Eosinophilic

Nucleus → Blue

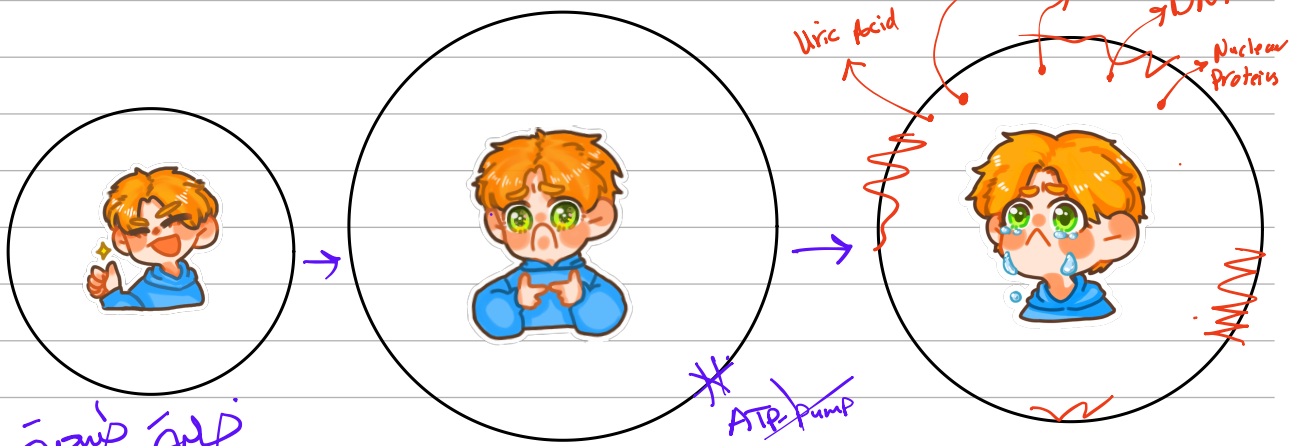
Basophilic قُجِب د Base

- Uncontrolled cell death why?

Severe, Rapid, Irreversible injury



النتيجة النهائية للحياة التي لم تكن قادرة على التصحيح والشفاء!!!
 Culmination of Reversible Injuries that cannot be corrected.



سليم

Reversible injury Swelling

Necrosis
 - Cell membrane Rupture
 - Spillage of content
 و كسر جدار الخلية والتسرب

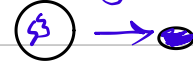
- في عندي عدة تغيرات تتم مع الخلية في Necrosis وتقع من حيث المكان ← على النواة ← على سيتوبلازم

Cytoplasmic changes

1. \downarrow RNA \Rightarrow \downarrow Basophilia
 \uparrow denatured proteins \Rightarrow \uparrow Eosinophilia
2. \downarrow Glycogen \Rightarrow Glassy appearance
3. \uparrow Organelle digestion \Rightarrow more eaten

Nucleic changes

1. Pyknosis \rightarrow Shrinkage + \uparrow basophilia



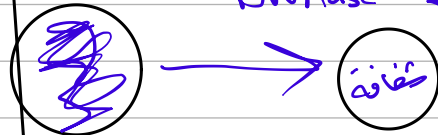
2. Karyorrhexis \rightarrow Fragmentation of pyknotic nucleus






بتفتت

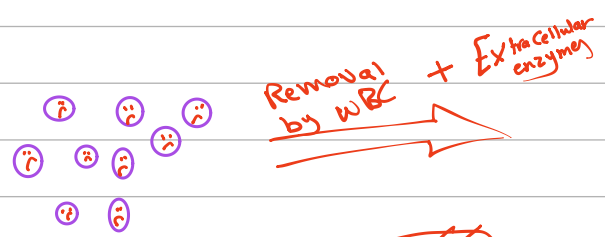
3. Karyolysis \rightarrow \downarrow Basophilia of chromatin

DNAase ← بسبب



- شايه كراهي الهمس ؟
 النواة بالخلية اليه يمين ديتكون طابت و الهمس

	Mechanism	Sites	Special terms
Coagulative necrosis	<ul style="list-style-type: none"> Protein denaturation → ghost cells لأنها يتخسر المنواة 	<ul style="list-style-type: none"> Particularly in myocardium, liver, kidney 	<ul style="list-style-type: none"> Characteristic of hypoxic cell death in all tissues except in the brain Most common type ↑ Preserved tissue structure
Liquefactive necrosis	<ul style="list-style-type: none"> Neutrophils digest cells proteins 	<ul style="list-style-type: none"> Lipid rich tissues → ex: brain 	<ul style="list-style-type: none"> Cerebral infarction
Caseous necrosis	<ul style="list-style-type: none"> Center of granulomas 		<ul style="list-style-type: none"> Cheese-like on gross morphology. Tuberculosis infection (Mycobacterium)
Fat necrosis	<ul style="list-style-type: none"> Degradation of fatty tissue by lipases (released from dead cells) 	<ul style="list-style-type: none"> Pancreas 	<ul style="list-style-type: none"> Chalky appearance (deposits) Acute pancreatitis Trauma to fatty tissues
Fibrinoid necrosis	antigen antibody complexes are deposited in the walls of blood vessels along with fibrin.	<ul style="list-style-type: none"> Walls of blood vessels 	<ul style="list-style-type: none"> Severe hypertension



Tissue necrosis



Tissue Dystrophic Calcifications

Creatine Kinase ← كرياتين كيناز
Aspartate transaminase (SGOT) (AST) ← اسبوت