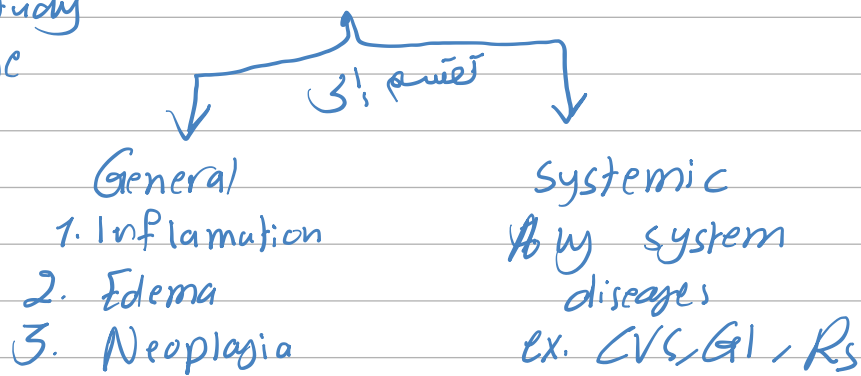


-Def.
scientific study
of a disease

← Pathology

Autopsy → تشریح الجثث



Core Aspects of pathology

1. Etiology, why? سبب حدوث المرض

2. Pathogenesis, How? آلية حدوث المرض

1+2 ⇒ ^{كيف} Help us develop treatment

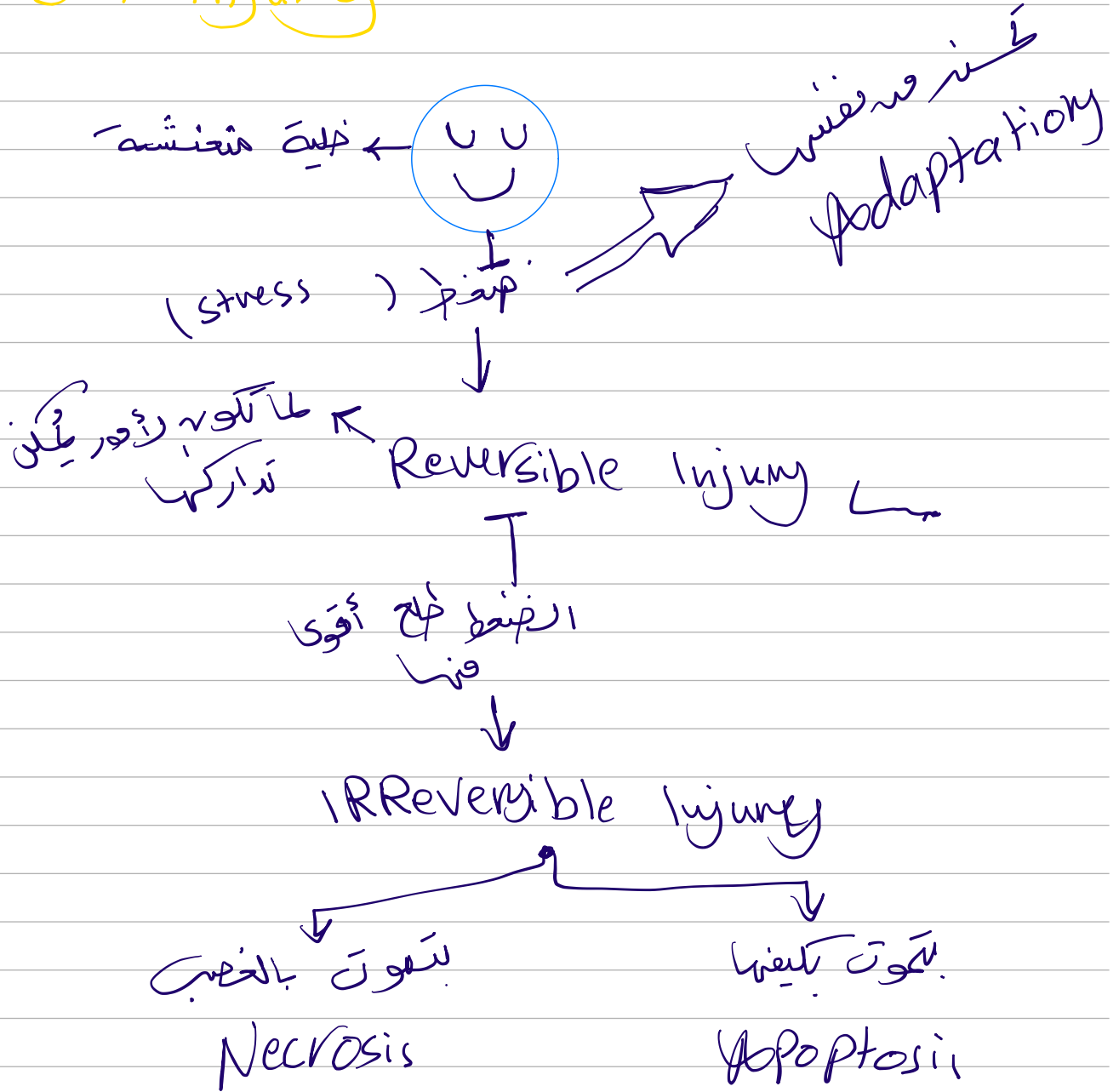
3. Morphology ^{شيو البشور}

- ↳ A. Gross → Naked eye
- ↳ B. Microscopic

4. Clinical manifestations ^{تظاهرات المرض}

↓
Signs & Symptoms

Cell Injury

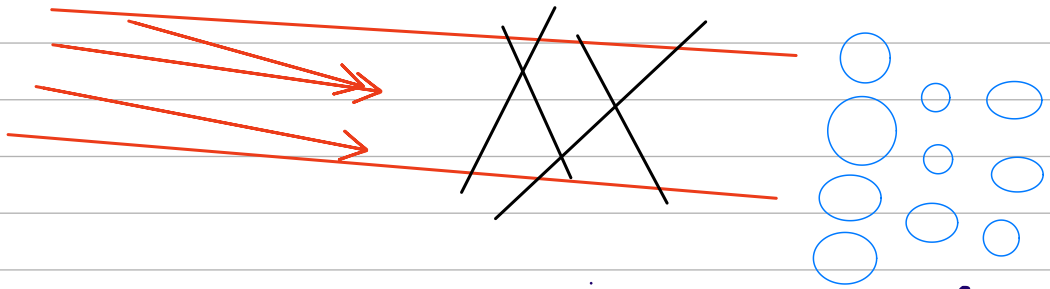


أسباب إصابة الخلية

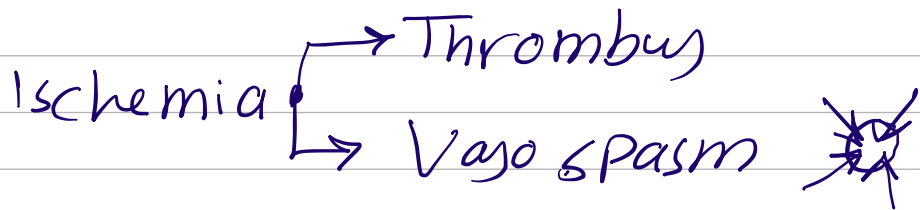
1. Oxygen deprivation. $\downarrow O_2$
2. Toxicity
3. Aging

٩٩ \downarrow O_2 کثیر رچھو عیسی

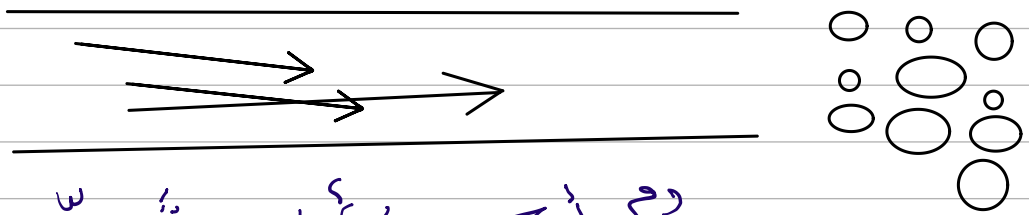
1. Ischemia \Rightarrow ماخ دم واپر لڳلایا



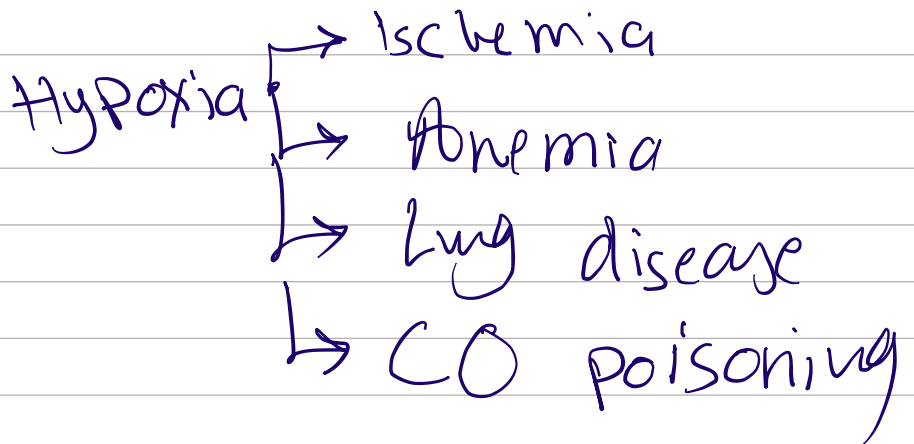
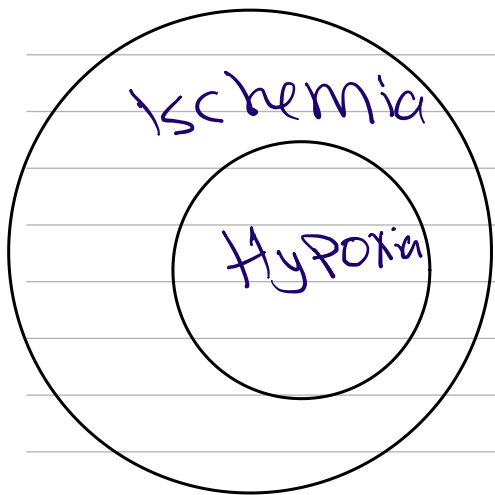
لڳلایا خلیا، ماخ دم واپر O_2



2. Hypoxia \Rightarrow خ دم بس ماخ O_2



دم ا وور لڳلایا مشعل لڳلایا O_2

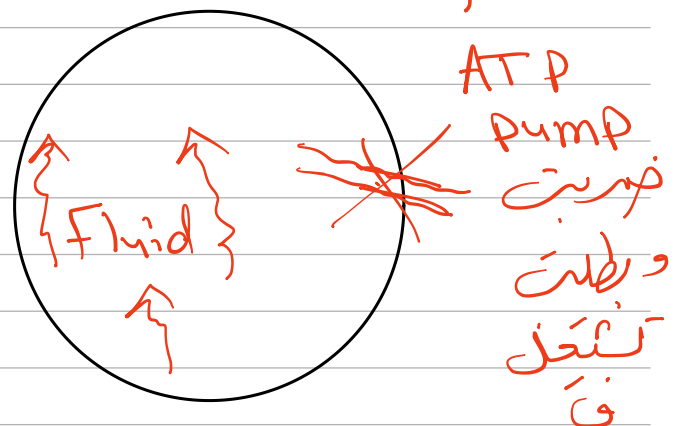
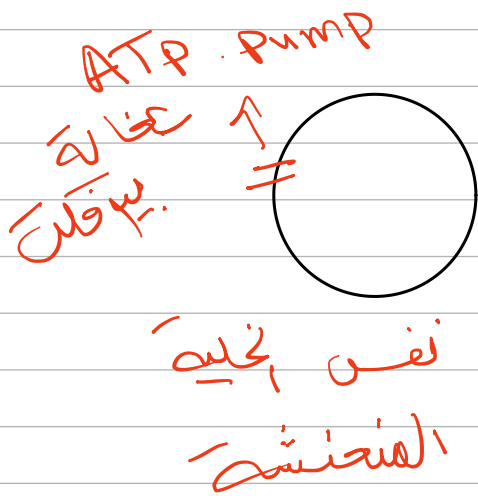


Reversible Injury.

1. When? if the stress is short in duration and not severe

2. Function & structure return to normal

3. Characters → A. Cellular Swelling



Na stuck inside the cell & Fluid will accumulate inside the cell

Grossly → Pallor & turgor

Hydropic changes

B. Fatty changes → Hepatocytes & Myocardial cells
↳ Hypoxic injuries, toxic & metabolic ONLY

↳ Microscopically → lipid vacuoles in cytoplasm