

فسلجة الامراض النظري
المرحلة الثالثة
الفصل الاول



كلية الرشيد الجامعة
قسم الصيدلة
٢٠١٨ - ٢٠١٩

Inflammation, Tissue Repair and Regeneration

Lec (2 + 3)

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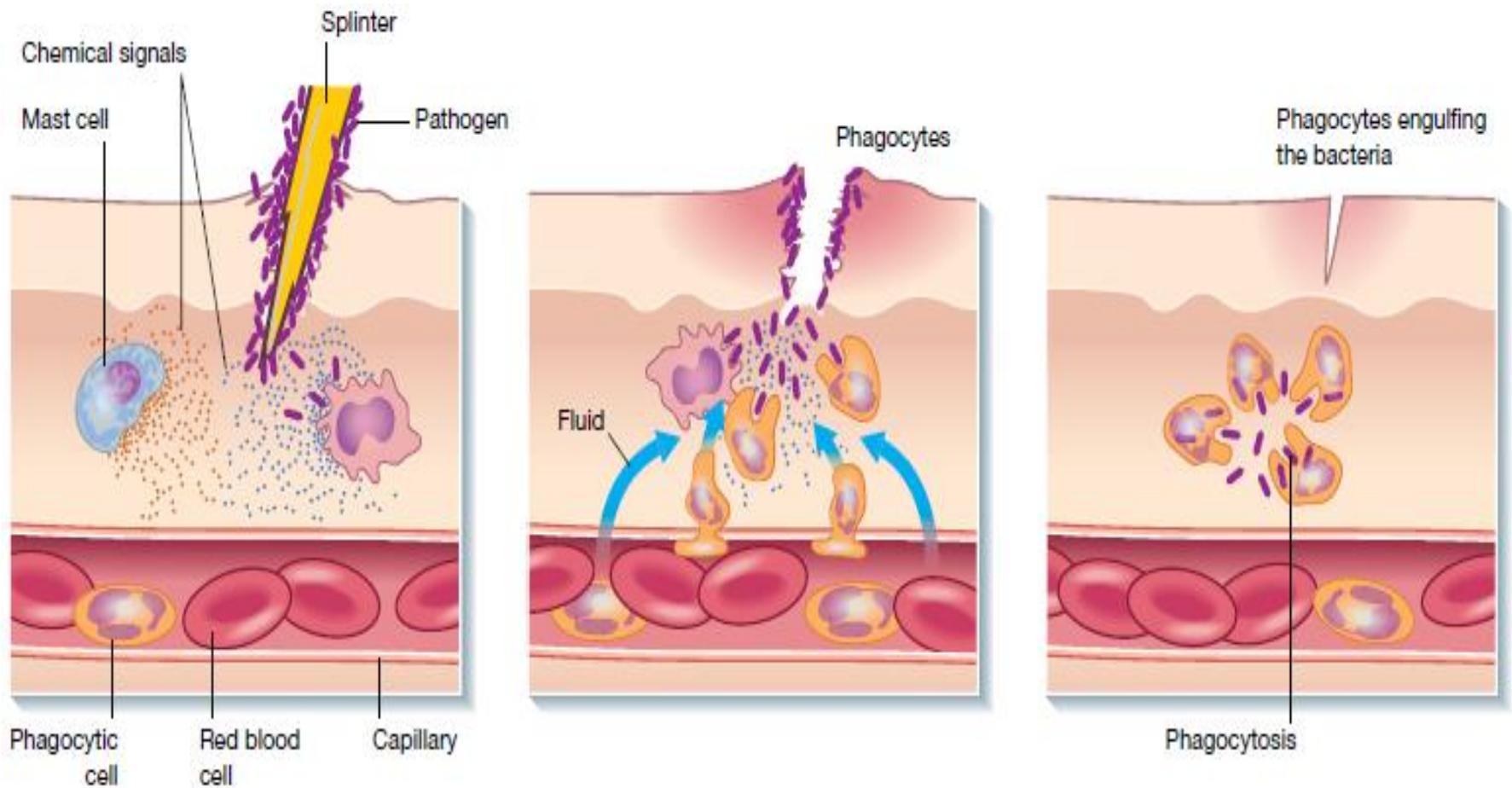
▶ **Inflammation:**

- ▶ A localized protective response elicited by destruction of tissues, which serves to destroy, dilute or wall off the injurious stimuli and the injured tissue

▶ **Types of inflammation:**

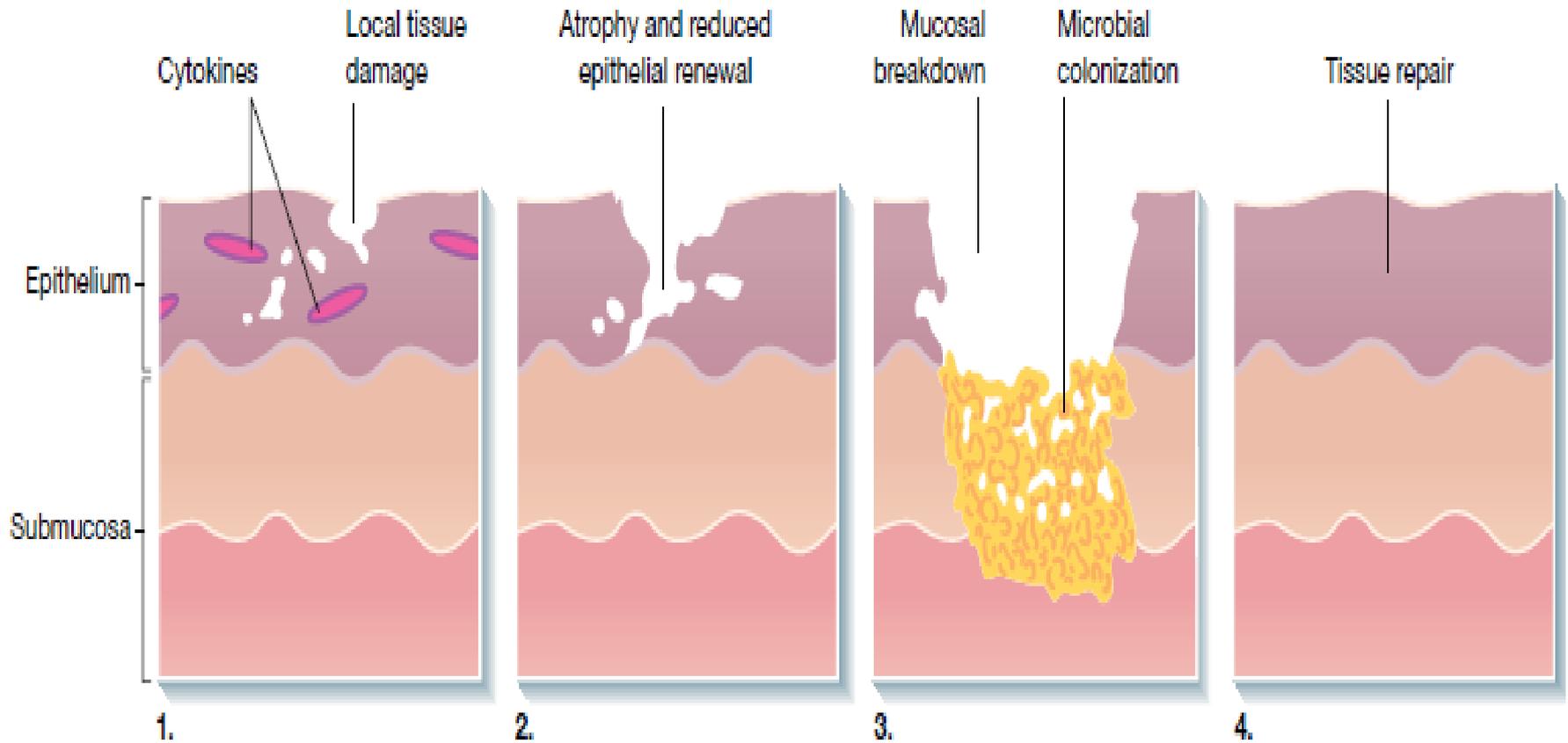
- ▶ Acute inflammation
- ▶ Chronic inflammation





Tissue Injury & the Inflammation Process





Phases of Tissue Repair



▶ **Signs of inflammations:**

- ▶ Redness
- ▶ Heat
- ▶ Swelling
- ▶ Pain
- ▶ Loss of function

A. Acute inflammation:

- ▶ Pathogenesis:
 - ▶ Changes in vascular flow and caliber
 - ▶ Increase vascular permeability
 - ▶ Cellular events



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- ▶ Outcome of acute inflammation:
 - ▶ Resolution
 - ▶ Healing by fibrosis
 - ▶ Abscess formation
 - ▶ Progression to chronic inflammation

B. Chronic inflammation:

- ▶ A prolonged process in which destruction and inflammation are proceeding at the same time as attempts at healing, it arises from 3 ways:
 - ▶ Progression of acute inflammation
 - ▶ It may begins as a chronic inflammation
 - ▶ Repeated attacks of acute inflammation
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▶ **Causes of chronic inflammation:**

- ▶ Persistent infection
- ▶ Prolonged exposure to toxic agents
- ▶ Autoimmunity

▶ **Morphological features of chronic inflammation:**

- ▶ Infiltration of mononuclear cells (monocytes and lymphocytes)
- ▶ Tissue destruction
- ▶ Removal of damaged tissue (healing) through fibrosis and angiogenesis



Chronic granulomatous inflammation:

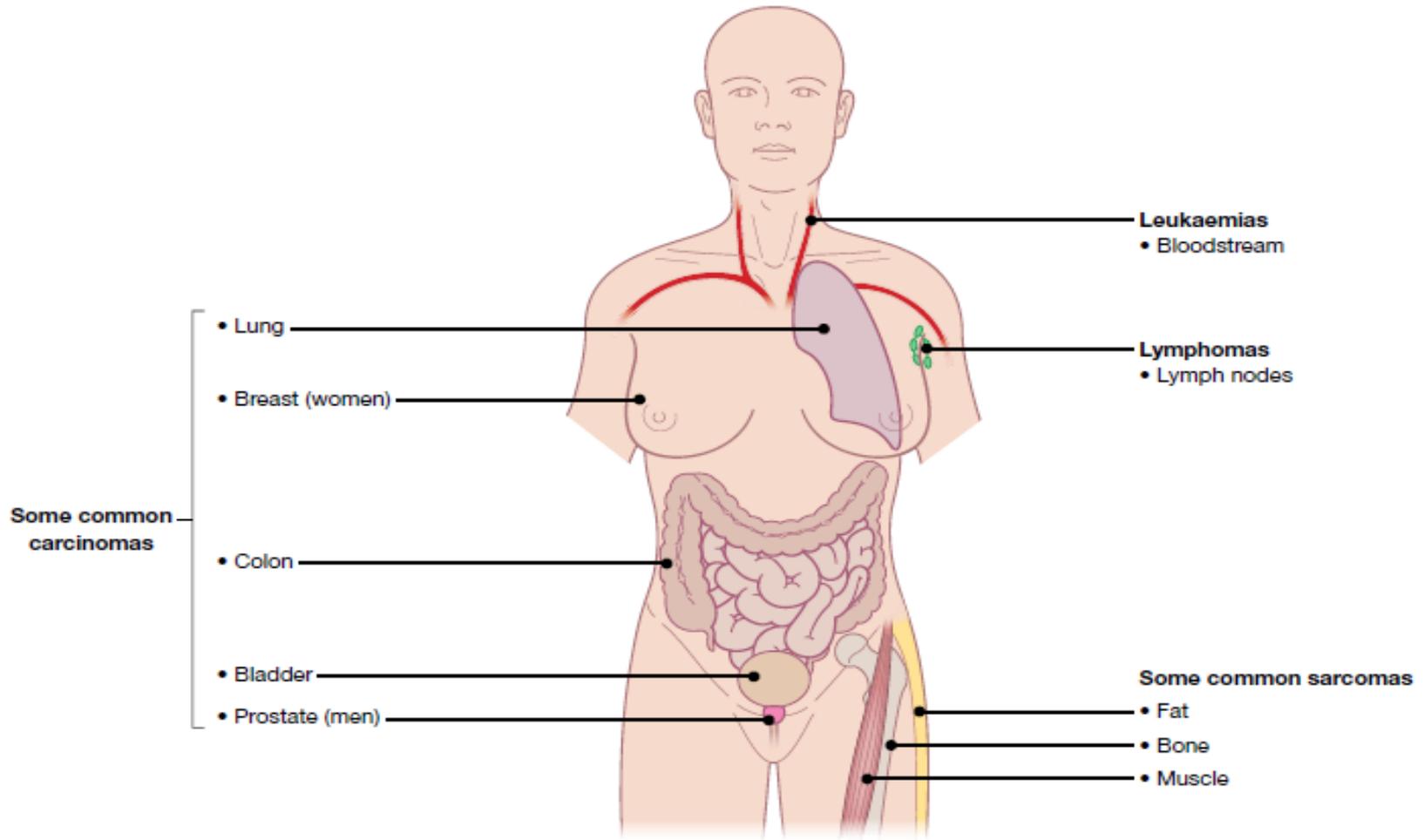
- ▶ A type of chronic inflammation defined by the presence of granulomas which are small 0.5 – 2 mm collections of modified (epithelioid) histiocytes/macrophages and (Langhan) giant cells (fused histiocytes), with a background of new capillaries, fibroblasts and new collagen, usually surrounded by a rim of lymphocytes
- ▶ **Etiology:**
 - ▶ Biological agents
 - ▶ Non-biological agents
 - ▶ Unknown
- ▶ **Types of granulomas :**
 - ▶ Foreign body granulomas
 - ▶ Immune granulomas



Cancer:

- ▶ Definition of cancer
- ▶ Types of cancer
- ▶ Etiology (causes) of cancer:
 - ▶ Genetic factors
 - ▶ Age
 - ▶ Viruses
 - ▶ Bacterial infections
 - ▶ Immune system
- ▶ Classification/grading and staging of cancer





Some of The Organs Affected by Cancer

