

The high yield

Special morphologic patterns are often seen in addition to the general features which are characteristic of most acute inflammatory reactions, depending on:

- 1-The severity of the reaction.
- 2-Its specific cause.
- 3-Particular tissue.
- 4-Site involved.

The type of acute inflammations:

SEROUS INFLAMMATION

Marked by the exudation of **cell poor fluid** into spaces created by injury to surface epithelial or into body cavities such as peritoneal, pleural, or pericardial cavities.

fluid in serous inflammation(effusion):

- 1-not infected
- 2-doesn't contain large numbers of leukocytes

SKINBLISTER (example)

Resulting from a **burn or viral infection**.

Represents accumulation of serous fluid within or immediately beneath the damaged epidermis of the skin

FIBRINOUS INFLAMMATION

A fibrinous exudate develops when the **vascular leaks are large** or there is a **local procoagulant stimulus**. it is characteristic of inflammation in the lining of body cavities, such as the **meninges, pericardium and pleura**.

MECHANISM OF FORMATION:

- 1-increase in vascular permeability.
- 2-fibrinogen pass out of the blood.
- 3-fibrin is formed and deposited in the extracellular space

PURULENT (SUPPURATIVE) INFLAMMATION, ABSCESS

-characterized by the production of **pus**, an exudate consisting of **neutrophils**, the **liquefied debris of necrotic cells**, and **edema fluid**.

-most frequent cause is infection with pyogenic (pus producing) bacteria, such as **staphylococci**.

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A COMMON EXAMPLE OF AN ACUTE SUPPURATIVE INFLAMMATION IS ACUTE APPENDICITIS

Abscesses:

- 1-Localized collections of pus
- 2- produced by seeding of pyogenic bacteria into a tissue
- 3-may become walled off and ultimately replaced by connective tissue

OUTCOMES OF ACUTE INFLAMMATION

1.Complete resolution:

Occur when the injury is:

- limited or short-lived
- there has been little tissue destruction
- damaged parenchymal cells can regenerate.

2.Healing by connective tissue replacement (scarring, or fibrosis).

occurs after substantial tissue destruction, when the inflammatory injury involves tissues that are incapable of regeneration, or when there is abundant fibrin exudation.

3.Progression of the response to chronic inflammation.

Occurs when the acute inflammatory response cannot be resolved

ULCERS

local defect, or excavation, of the surface of an organ or tissue that is produced by the sloughing (shedding) of inflamed necrotic tissue.

Occurs only when tissue necrosis and resultant inflammation exist on or near a surface.

MOST COMMONLY ENCOUNTERED IN:

- (1) the mucosa of the (mouth, stomach, intestines, or genitourinary tract).
- (2) the skin and subcutaneous tissue of the lower extremities in older persons

CHRONIC INFLAMMATION

is a response of prolonged duration (weeks or months) in which:

- 1.inflammation.
- 2.tissue injury.
- 3.attempts of repair

CAUSES OF CHRONIC INFLAMMATION

- o Persistent infections,
- o Hypersensitivity diseases.

- 1-Autoimmune disease.
- 2-Allergic diseases.
- 3-Prolonged exposure to potentially toxic agents, e.g Silica

CELLS AND MEDIATORS OF CHRONIC INFLAMMATION:

- o Macrophages
- o Lymphocytes