

Chronic inflammation

* Cell of the chronic: **Mononuclear cell, 3 type:**

- ① Macrophage ② lymphocyte ③ plasma cell

* Causes of chronic inf:

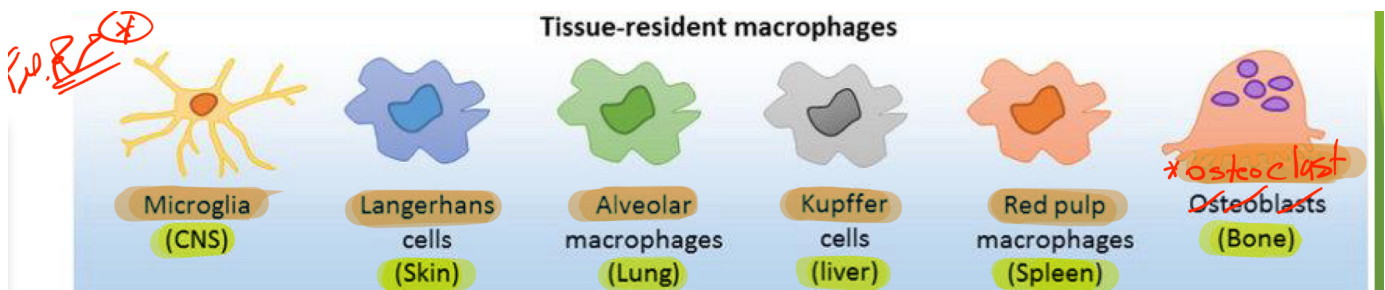
- progression from acute inflammation
- Hypersensitivity disease → autoimmune disease
→ allergic disease
- prolonged exposure to potentially toxic agent ex: silica

* In chronic inf → **Tissue destruction and repair at same time**
↳ Fibrosis
↳ Angiogenesis

* **Macrophage** → dominant cell in chronic inf.

* Monocyte = Macrophage

↳ circulating ↳ in tissue



Macrophage	monocyte
Long life span	Short life span (one day)
bigger	smaller
more phagocytosis	less phagocytosis

* M(1) pathways:

* other name: classical pathway

* function: destroy of the offending agent

* induced by: IFN- γ

* M(2) pathways:

* other name: Alternative pathway

* function: initiates tissue repair

* induced by: IL-4 and IL-13

* other cell in chronic inflammation: (non specific)

① Eosinophils: IgE and parasitic infection (دائماً الة دخل نيلهم)

② Mast cell: play role in acute and chronic inflammation

⇒ function: degranulate and release ① Histamine ② prostaglandins

* Granulomatous inflammation:-

form of chronic inflammation characterized by collection Macrophage and

⊕ often with T-lymphocyte

→ Component of granuloma:

① Epithelioid histocytes: epithelial cells تتحول إلى Macrophage

② Multinucleated Giant Cells: Fused of Macrophage

③ Lymphocytes

* Type of granulomas:

- ① Immune granulomas: present of T-lymphocyte
- ② foreign body granulomas: absence of T-lymphocyte

* Most important cytokines in acute phase reaction:

- ① IL-1 ② IL-6 ③ TNF

* Fever caused by PGE2

ما معنى بطني انه العرق انوعده fever ؟ كما ترتفع درجة الحرارة من درجة 4 اربع درجات

* Most important acute phase protein:

- ① C-reactive protein (CRP) ② fibrinogen ③ serum amyloid A protein (SAA) protein

* Leukocytosis occurs because: more number of immature neutrophil in blood. (shift to left)

→ neutrophilia by most bacterial infection

→ lymphocytosis by viral infection ex: mumps, German measles, infectious mononucleosis
طريقة لطفلة في داء انه السانية

→ eosinophilia by allergies & parasitic

→ leukopenia by typhoid & rickettsiae & certain protozoa

* Sepsis ⇒ life-threatening condition that arises when the body's response to infection causes injury to its own tissue and organ.

← يعني الاشئ التي عمل عنده injury دخل على blood لان خلايا الدم ما قدرت تعمل

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