



Histology (2) , M 107

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1- Contracture deformity in light of the histological features of skeletal muscles:

Write a review article about the histological features of skeletal muscle and abnormalities in tissue structure in contracture deformity.

- Give general characteristics of muscular tissue.
- Review the general features of skeletal muscle.
- Describe the LM and EM picture of skeletal muscle.
- Highlight the regenerative capacity of skeletal muscle.
- Describe pathophysiology of contracture deformity.

2- Osteoporosis in light of histological features of the bone:

Write a review about the histology of the bone and pathophysiological process of osteoporosis.

- Review the general structure of the bone.
- Describe the periosteum and the endosteum.
- Describe the LM and EM picture of different bone cells:
 - a- Osteoprogenitor cells.
 - b- Osteoblasts.
 - c- Osteocytes.
 - d- Osteoclasts.
- Describe pathophysiology of osteoporosis.

3- Effects of COVID-19 infection on the CBC of patients in light of the histology of leukocytes.

Write a review article about different types of leukocytes and abnormalities in complete blood count of COVID-19 patients.

- Review the general features of leukocytes.

- Highlight key differences between granular and agranular leukocytes.
- Describe the LM and EM picture of leukocytes:
 - a- Neutrophils.
 - b- Eosinophils.
 - c- Basophils.
 - d- Lymphocytes.
 - e- Monocytes.
- List changes in CBD due to COVID-19 infection.

4- Atherosclerosis in light of normal histology of blood vessels:

Write a review article about normal histology of blood vessels and highlight pathophysiology of atherosclerosis.

- Describe the basic structure of blood vessels.
- Highlight key differences between elastic and muscular arteries.
- List different types of capillaries.
- Compare medium sized arteries and veins while highlighting histological structure of veins.

5- Pathogenesis of chronic hepatic disease in light of the ultrastructure of the human liver:

Write a review article about ultrastructure of the human liver and viral hepatitis that affect normal hepatic architectures leading to chronic hepatic disease.

Objectives:

- Review histological features of the liver (stoma and parenchyma).
- Describe classic hepatic lobule.
- Highlight hepatocyte structure: LM and EM.
- List features of chronic viral hepatitis that distrust normal hepatic architecture.
- List clinical manifestations of chronic liver disease