

Main features :-

- ① Pigmentation of various organs - Cells of Reticulo-endothelial system.
- ② Hyperplasia of Reticulo-endothelial system
- ③ Parasitised erythrocytes filling the lumina of the capillaries of the internal organs.
- ④ Vascular Changes - Congestion and dilation of Sinusoidal vessels.
- ⑤ Degenerative changes of Parenchyma Cells - Hypoxic state.
- ⑥ Immunosuppression.

PATHOLOGICAL CHANGES IN VARIOUS ORGANS

Spleen * Moderately enlarged * Colour - slate grey / Black

- * Histopathology includes - Congestion in Spleenic Sinusoids. - Microscopic examination
- Enormous pigmentation due to Haematin + Haemosiderin.
 - Macrophages - greatly increased.
 - Parasite differentiated as black dots.
 - Increased reticulin fibers.

Liver - * Uniformly enlarged due to vascular congestion and Proliferation of reticuloendothelial cells.

* Dark chocolate red * Fatty changes limited to Central Zone

* Histopathology - Dilated lobules & sinusoidal capillaries and filled with RBCs

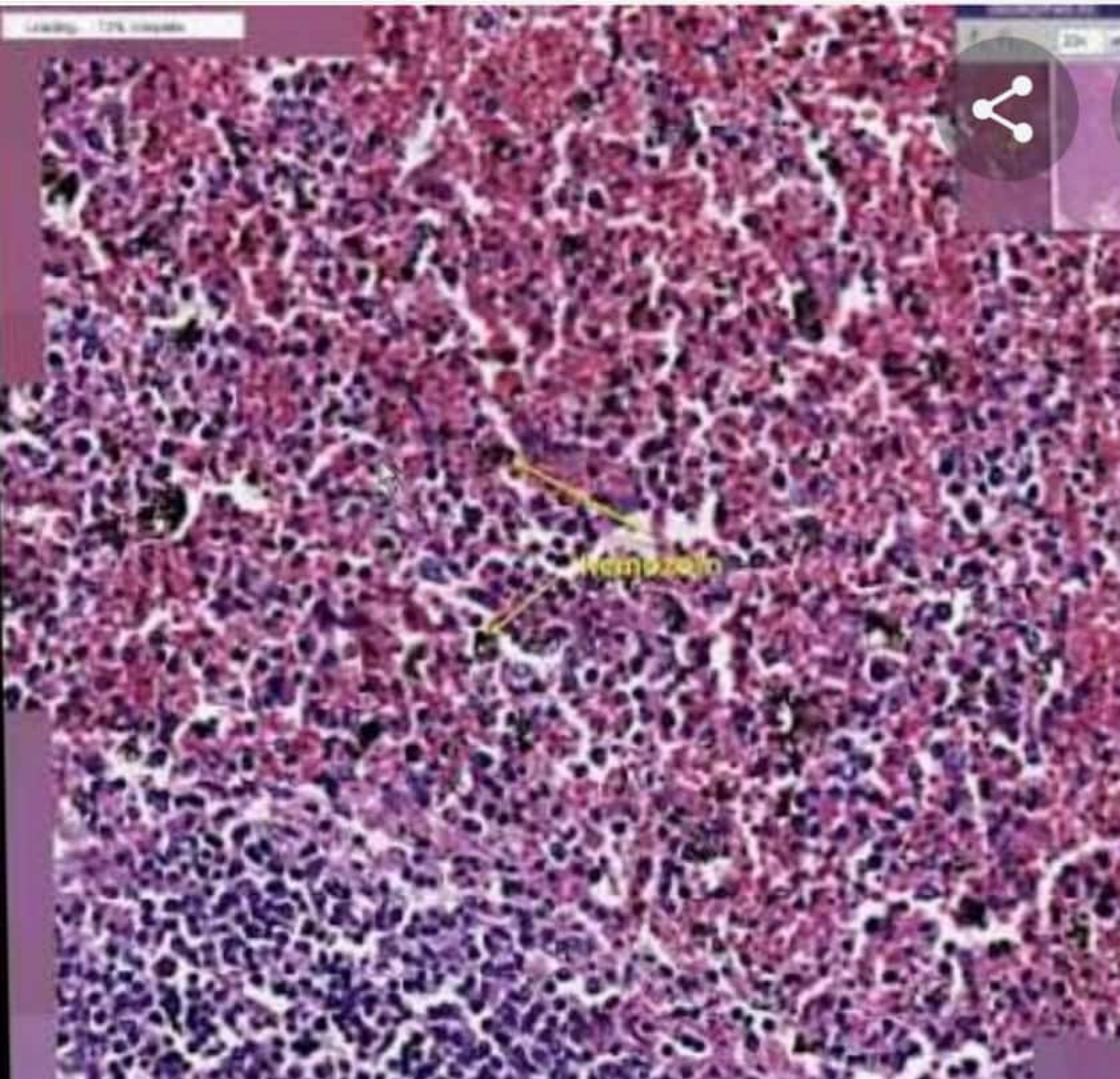
- Increased Kupffer's cells.
- Parenchymal cells shows fatty degeneration, atrophy & necrosis.
- Fibrous tissue observed in Portal Zone or Central Zone.

Bone marrow - * Long bone marrow - very little change

* Chronic cases - Reddish brown or slate gray or Black.

* Yellow fatty marrow gradually replaced by vascular cellular tissue

- * Hyperplasia of Reticulo-endothelial cells. laden with haematin
- Increase in number of Reticulocytes & RBCs.
 - Depression in Myeloblastic activity.



Kidneys - Renal manifestations in Malaria.

(2)

- (i) Renal Anoxia syndrome - Anuria and acute Uraemia.
- (ii) Nephropathy - Nephrotic syndrome - Antibody Complexes deposited on glomerular Capillary basement membrane.

Laboratory Diagnosis of Malaria

- ① Microscopic examination of blood, films. + Biopsy.
- ② Cultural Examinations.
- ③ Blood Count - Neutropenia with Monocytosis.
- ④ Serological tests - Immunofluorescence test { Direct
- Gel precipitation test. { Indirect
- IHA, ELISA.
- ⑤ Rapid diagnostic test - Dip stick test / Test strip test.

TREATMENT - Antimalarial drugs.

- ① Essential therapeutic - Clinical cures → 4-aminoquinolines such as Chloroquine ~~artemisinin~~ compounds, quinine and Mefloquine.
- ② Protective / Prophylactic - Proguanil (Chloroguanide), ~~Peri~~ Pyrimethamine, Trimethoprim, Cycloquanil.
- ③ Synergist - Potential action of Schizonticidal drug - Sulphonamides and Sulphones (Dapsone) - Combination

Prophylaxis → Personal prophylaxis → Protection against mosquito bites.
→ Chemoprophylaxis.

→ Community prophylaxis → Prevention of Carriers / Mosquitoes.
→ Antimosquito measures.

- Spray of insecticides / larvicides
- Insecticide treated bednets.
- Biological Control - Fish feeds on mosquito larvae in breeding grounds / water -
Gambusia affinis