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OCULAR DISEASE

Corneal vascularisation



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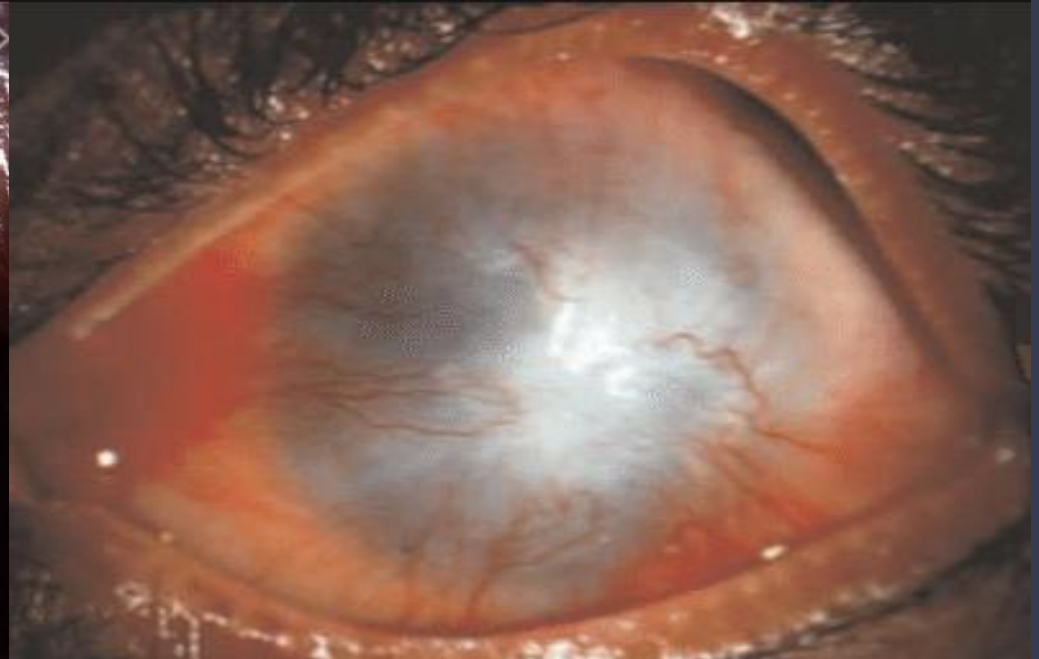
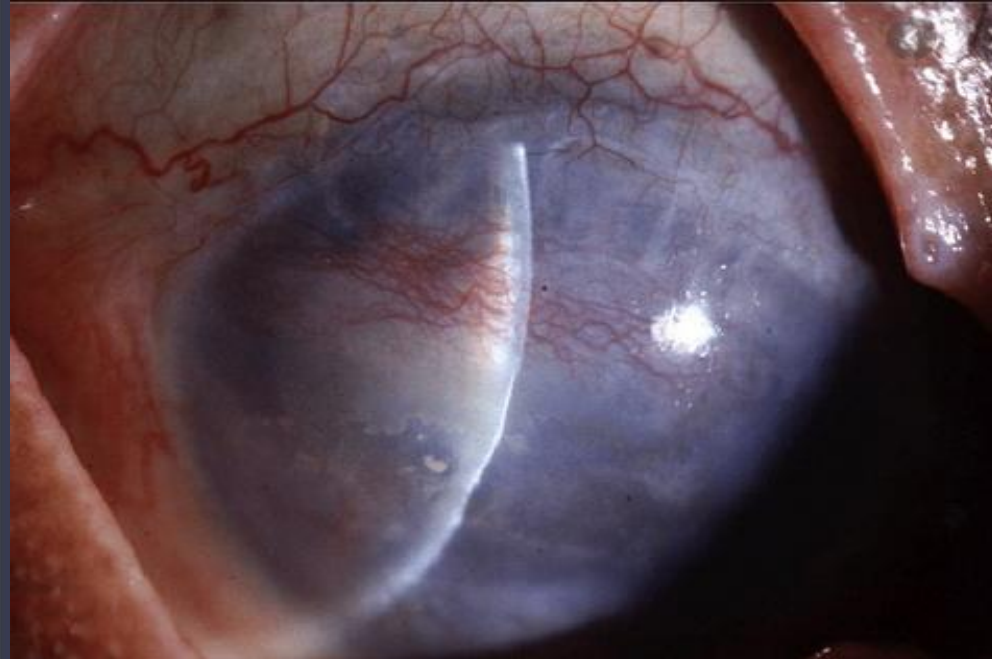
VASCULARIZATION OF CORNEA

- Normal cornea is avascular except for small capillary loops which are present in the periphery for about 1 mm.
- In pathological states, it can be invaded by vessels as a defence mechanism against the disease or injury.
- Vascularization interferes with corneal transparency



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VASCULARIZATION OF CORNEA





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Pathogenesis

- Vasoformative stimulus (*chemical factor*) released during pathological states, there occurs proliferation of vessels which invade from the limbus;
- When compactness of corneal tissue is loosened *due to oedema*.



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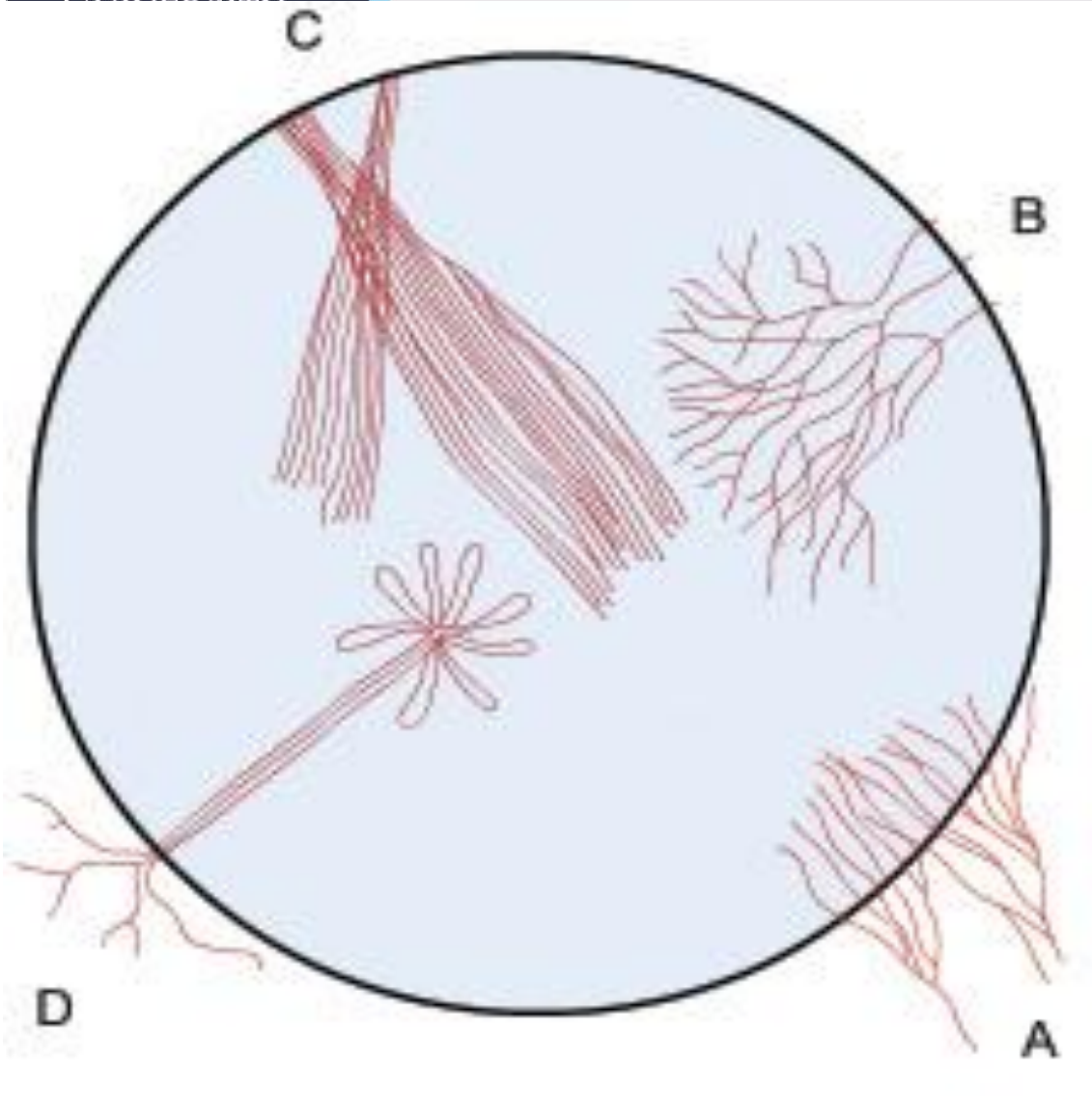
Clinico-etiological features

- 1. Superficial corneal vascularization***
- 2. Deep vascularization.***



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Corneal vascularization



- A, superficial**
- B, terminal loop type**
- C, brush type**
- D, umbel type**



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1. *Superficial corneal vascularization.*

- In it vessels are arranged usually in an arborising pattern, present below the epithelial layer and their continuity can be traced with the conjunctival vessels.
- ***Common causes are:***
trachoma, phlyctenular keratoconjunctivitis, superficial corneal ulcers and rosacea keratitis.

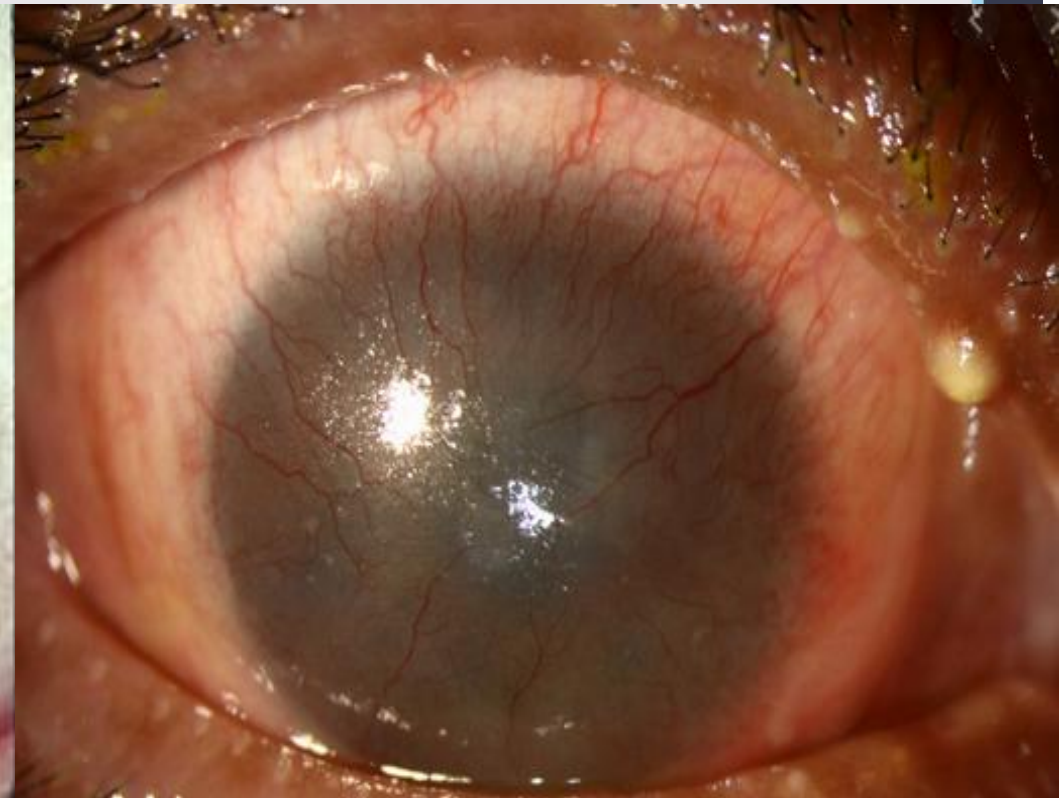
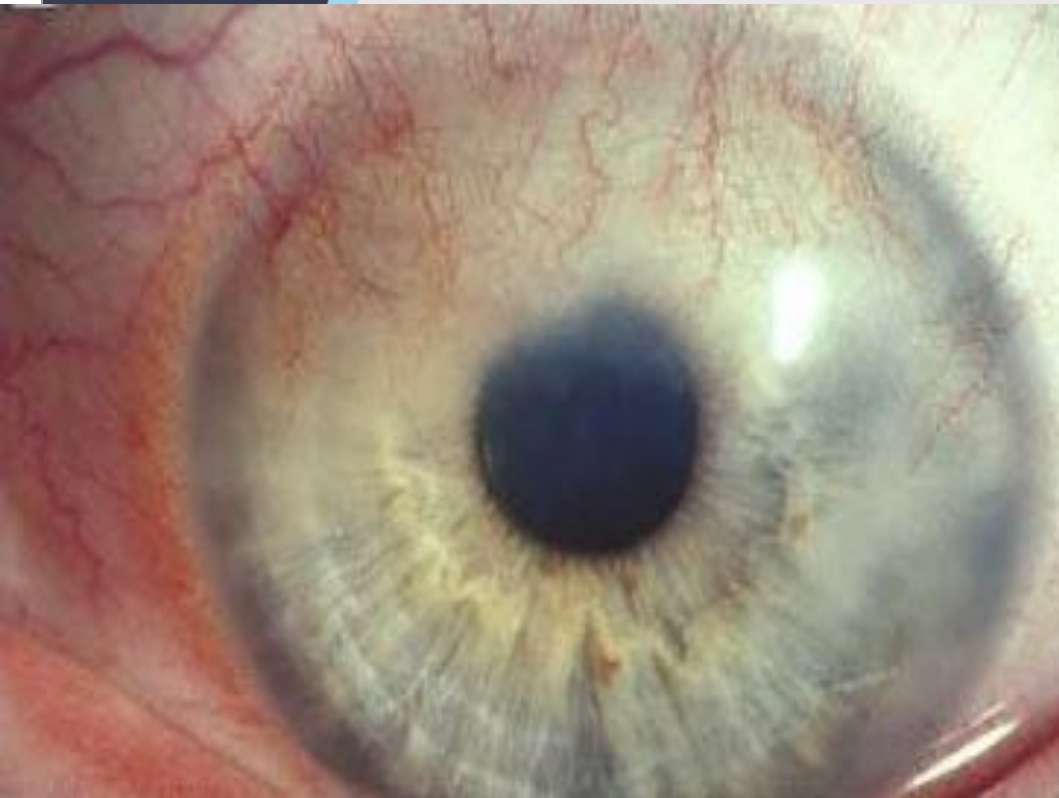


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Pannus

- When extensive superficial vascularization is associated with white cuff of cellular infiltration, it is termed as *pannus*.





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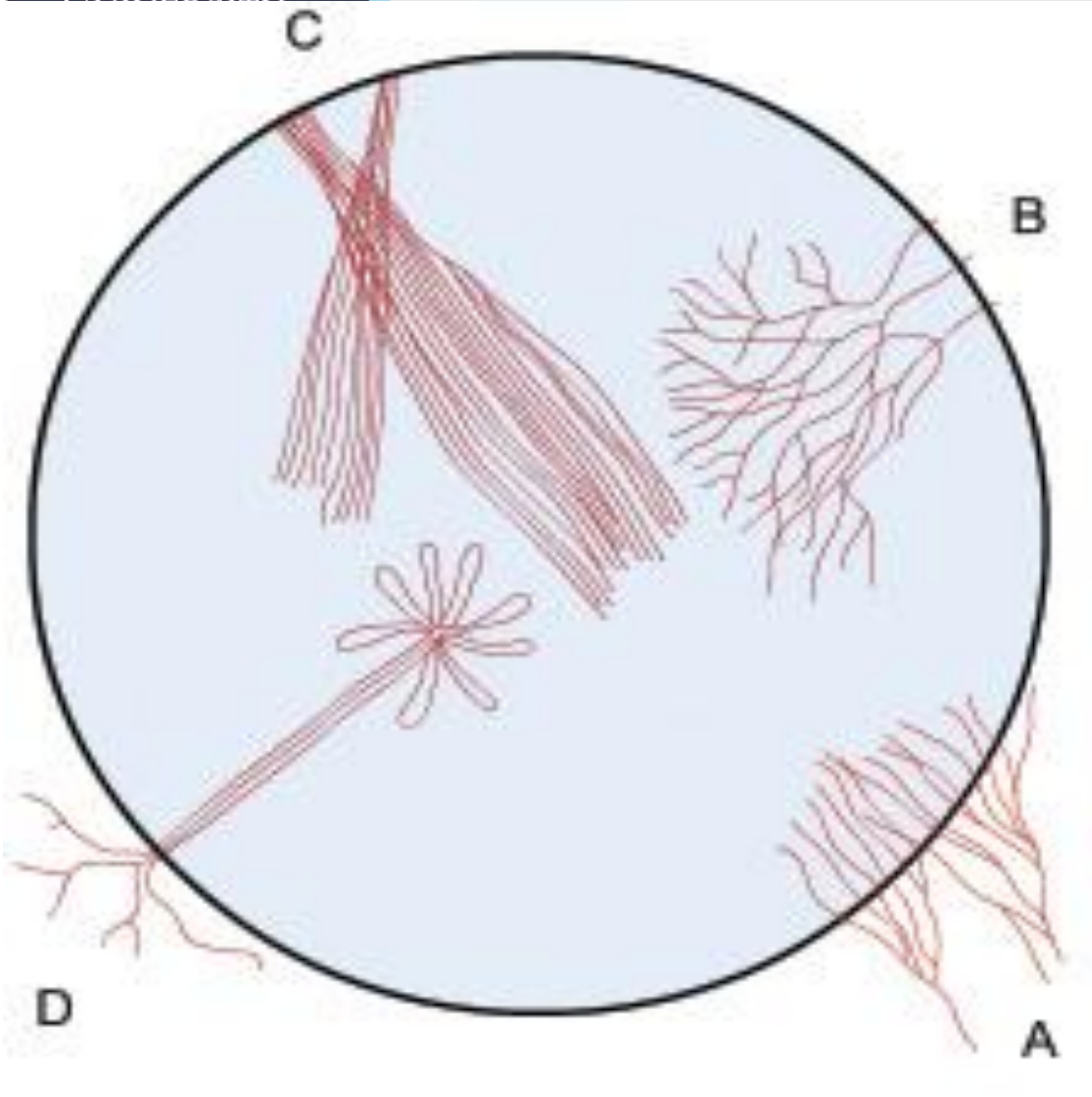
2. Deep vascularization.

- In it the vessels are generally derived from anterior ciliary arteries and lie in the corneal stroma.
- These vessels are usually straight, not anastomosing and their continuity cannot be traced beyond the limbus.
- Deep vessels may be arranged as terminal loops, brush, parasol, umbel, network or interstitial arcade.



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Corneal vascularization



- A, superficial**
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Common causes

- Interstitial keratitis
- Disciform keratitis
- Deep corneal ulcer
- Chemical burns
- Sclerosing keratitis
- Corneal grafts.



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Treatment

- Vascularization may be *prevented by* timely and adequate treatment of the causative conditions.
- *Corticosteroids may have vasoconstrictive* and suppressive effect on permeability of capillaries.