A MYXO-HAEMANGIOMA SIMPLEX OF THE CONJUNCTIVA BULBI*  

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A woman, aged 35 years, came into my consulting-room, complaining that she had the sensation of a foreign body in her right eye. For six weeks she was aware of the presence of a small tumour in the inner angle. Nothing was known about any trauma. The tumour was growing rapidly and at the time of my investigation it was about 4 mm. high and had a diameter of 3 mm. It was of a fungus-like shape and had a broad and short pedicle. It was movable on the underlying tissue. Its base was partly covered by the semilunar plica. The tumour had a cherry-red colour and a smooth surface. At its base a tortuous and dilated vessel was visible.

Because of its disfiguring effect and its rapid growth I decided to remove the tumour. This was performed under cocaine anaesthesia. The tumour was excised by the single snip of a pair of scissors. There was little or no haemorrhage. Fixation with Bouin's liquid.

The microscopical examination gave the following picture: The whole tumour is completely covered with normal epithelium, containing many goblet cells (Fig. 1). The main substance of the tumour consists of compactly arranged small blood-vessels (dilated capillaries). The endothelial cells are extremely swollen. Here and there we find more than one layer, so that the lumen is obliterated by them. Some larger vessels intersect the tumour. In various sections we see large oedematous areas and some smaller

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interstitial haemorrhages, probably the result of interference with the blood circulation. The anatomical substrate of the impairment of the normal blood supply we see in the thrombotic vessels in the tissue subjacent to the tumour (episclera). At the same time these clotted vessels give us the explanation of the fact that the excision of the tumour caused practically no haemorrhage. The tumour is surrounded by a thin fibrous capsule. The connective tissue in the tumour is very poorly developed. In the sections, stained after Mallory, we see only an extremely delicate network of blue fibres round the capillaries. At many places several free macrophages are visible. They are loaded with pigment granules, being the result of incorporated red blood-corpuscles. Also some plasma-cells are present. At the base of the neoplasm, outside the capsule, we notice a lymphocytic infiltration under the epithelium. At the periphery of the tumour, but inside its capsule, we see a large jelly-like, oedematous area with a great number of spindle-shaped cells, which constitute a wide-meshed network. Most of these cells are unmistakably sprouting endothelial cells, but among them we also find young fibroblasts, which give rise to the formation of a meshwork of delicate connective tissue fibres. The homogeneous substance lying in the meshes gives a positive mucin-reaction with thionin. It is this area where the tumour obviously shows signs of an intensive growth, but also the mitotic figures in the depth of the tumour give evidence of a constant proliferation. With these symptoms the rapid growth of the neoplasm is fully explained.
In Figure 2 we see under a higher magnifying power a tangentially cut section of the tumour, just outside the pedicle. The above-described reticular tissue, consisting of young fibroblasts and proliferating endothelium-cells, can be distinctly seen.

Coming to the point of making a diagnosis, we may say that in the underlying case we have to do with a haemangioma simplex of the conjunctiva bulbi, which simultaneously shows signs of an intensive proliferation and a myxomatous degeneration.

**Discussion**

Pedunculated haemangiomata of the conjunctiva bulbi are very seldom described in the ophthalmological literature. This is the reason that I thought it worth while to publish this case.

Among a great number of polypoid tumours of the conjunctiva which Elschnig collected from the literature, he did not find typical angiomata with certainty. In a survey Pergens reviews 52 cases of conjunctival haemangiomata (including two of his own). The majority of the tumours of the conjunctiva bulbi were situated in the inner angle of the eye. None of them resembled the neoplasm of my case. James and Trevor report on two cases of haemangioma simplex arising from the palpebral conjunctiva. Their second case perhaps resembles somewhat the tumour in my case, but there is certainly a striking difference in the amount of connective tissue, which was in my case practically absent, so that the capillaries with their swollen endothelial cells were lying almost immediately next each other. Pendleton White gives a description
of a capillary angioma arising from the palpebral conjunctiva of the upper eyelid. Here the convoluted thin-walled vessels were embedded in great masses of lymphocytes.

Maxted describes a pedunculated angioma of the conjunctiva of the upper eyelid, which perhaps shows some resemblance to my case.

Summarizing we can say that a tumour similar to the fungus-like haemangioma of the conjunctiva bulbi in my case, has not been previously described. The fact that symptoms of intensive growth synchronised with myxomatous degeneration is noteworthy.

After eight months no recurrence has followed.

REFERENCES

THE PROGNOSIS OF RETROBULBAR NEURITIS*

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Various theories as to the aetiological factors concerned in the production of retrobulbar neuritis have been postulated from time to time. In the days prior to the Wassermann reaction, a large number of cases were considered to be syphilitic in origin, and further evidence for this aetiology was given by a good response to mercury therapy. We now know that most cases of retrobulbar neuritis clear up rapidly without treatment. English authors have regarded disseminated sclerosis as the commonest cause of retrobulbar neuritis: Buzzard (1930) quotes Gowers as saying that gout is the next most frequent cause after disseminated sclerosis.

Marcus Gunn (1904) listed the following as possible causes in a series of 380 cases (tobacco amblyopia being excluded):—Periostitis 40, exposure to cold 27, dental sepsis 17, nasal sepsis 42, gumma 16, disseminated sclerosis 51, influenza 27, gout 22, varied (ptomaine poisoning, malaria, and constipation) 63, obscure 58, and the proportion of men to women was in the ratio of 31:27.

Marchesani (1936) in Bumke-Foerster’s Handbuch der Neurologie lists the following figures: tumour (anterior fossa) 6, toxic 15, lactation 2, nasal sepsis 9, lues 24, disseminated sclerosis 113,

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