

## CONJUNCTIVAL AMYLOIDOSIS\*

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A review of the literature shows that conjunctival amyloidosis as a manifestation of primary amyloidosis is rare, although systemic primary amyloidosis is not so uncommon. It was first described by von Oettingen (1871) and brief mention was made by Fuchs (1919), de Schweinitz (1921), Collins and Mayou (1925), Wolff (1934), and Castroviejo (1946). Wahi, Wahi, and Mathur (1954) reported a case of primary conjunctival amyloidosis and stressed its rarity. Srinivasan (1949) reported amyloid degeneration of the conjunctiva and showed its association with trachoma. Although the relationship between trachoma and amyloid degeneration of the conjunctiva is not clear, the association appears to be more than a mere coincidence.

### Case Reports

**Case 1, a farmer aged 50 years**, was admitted to hospital with painless tumours of both lids of the right eye and the lower lid of the left eye which had been present for the last 14 years. The conjunctiva was waxy pale. Both upper and lower lid margins were everted and on palpation the tumours appeared to involve the tarsal plate. In the right eye, the cornea was dry and adherent to the growth with limitation of ocular movement. Only perception and projection of light were present in the right eye, but the left was normal and the ocular movements were free, although the growth was loosely adherent to the bulbar conjunctiva. Trachoma was not evident.

The patient was in normal health and there was no enlargement of liver or spleen, the kidneys were not palpable, and the cardiovascular system showed no abnormality. An electrocardiogram, and blood, urine, and bone marrow examinations were normal. The stools showed cysts of *Entamoeba histolytica*.

The growths were excised and sent for microscopic examination which revealed amyloidosis with patchy calcification. Mucous membrane grafts were placed for each of the lids involved which took up uneventfully. A superficial lamellar keratectomy was done for the right eye and the corrected visual acuity improved to 6/36.

**Case 2, a farmer's wife aged 45 years**, attended hospital with the complaint of heaviness and ptosis of the right upper lid for the last 10 years. When the lid was everted a pale dry growth was seen to involve the whole tarsal conjunctiva. Both eyes were otherwise normal and the visual acuity 6/9. Trachoma could not be detected clinically or microscopically.

The patient was in normal health, there was no liver or splenic enlargement, the kidneys were not palpable, and the cardiovascular system and electrocardiogram were normal. The blood, urine, stools, and bone marrow revealed no abnormality.

The growth was excised and the lid margin was sutured with the conjunctiva at the fornix. Microscopic examination revealed amyloidosis.

### Discussion

Very few cases of primary amyloidosis of the conjunctiva have been reported in the literature. Primary systemic amyloidosis usually involves

\* Received for publication January 16, 1959.

heart, blood vessels, skin, and skeletal muscles, with occasional amyloid tumours in the urinary bladder, pharynx, tongue, urethra, and respiratory tract. The cases reported show that primary amyloidosis of the conjunctiva leads to tumour formation involving the tarsal plate.

The relationship of conjunctival amyloidosis with trachoma has not been established in spite of the findings of Srinivasan (1949).

In Rajasthan, where our two cases were seen, trachoma is so common that it affects nearly 80 per cent. of the population, especially the farmers. It is, therefore, difficult to assert that these patients had never suffered from trachoma though it was not possible to demonstrate it clinically or microscopically. In the later stages the trachoma virus is known to hide itself in the tarsal plate and it then becomes difficult to stain inclusion bodies in the conjunctival scrapings. This would be all the more difficult if the conjunctiva was infiltrated with the amyloid material.

Involvement of the tarsal conjunctiva only and not of the bulbar part, makes it more likely that primary amyloidosis of the conjunctiva bears some relation to trachoma.

It is possible that conjunctival amyloidosis may not in fact be so infrequent as is suggested in the literature. Our two cases were found in a random sample of out-patients within a period of a few months, and we feel that the disease has a predilection for those areas where trachoma is rampant. It is, therefore, suggested that all cases of hypertrophy of the tarsal plate and conjunctiva should be subjected to microscopic examination for amyloidosis.

### Summary

Two cases of primary amyloidosis of the conjunctiva are described. It is suggested that this disease may not be so rare as reported in the literature particularly in the areas where trachoma is common.

These patients were seen at the Victoria Hospital, Bharatpur, and we thank Dr. T. G. Mathur, Principal Medical and Health Officer, Bharatpur, for permission to publish this report.

We also thank Dr. P. N. Wahi, M.D., M.R.C.P., F.N.I., Professor of Pathology, S.N. Medical College, Agra, for his opinion on the microscopic appearance of the tissues.

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