Fixed vitreous cyst

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Vitreous cysts, which are rarely reported in the literature, tend to be described as small, transparent, mobile spheres causing transient blurring of vision (Cassady, 1939). The surfaces tend to be dimpled and irregularly pigmented. Details of the fundus can be clearly seen through their walls.

The great majority tend to be congenital in nature and associations with congenital remnants have been described on occasions, *e.g.* with the hyaloid artery (Koby, 1926).

However, vitreous cysts have been reported in association with diseased eyes, for example in cases of retinitis pigmentosa (Perera, 1936), and Duke-Elder (1964) felt that pathological cysts tended to be fixed, whereas congenital cysts were mobile or attached to pedicles. Occasionally such cysts are bilateral (Perera, 1936).

In the case reported here the cyst was fixed.

Case Report

A 26-year-old woman complained of sudden loss of the visual field in the left eye. She had suddenly become aware of a shadow in the upper field of vision. There was no previous history of ocular disease.

Examination

The visual acuity in the right eye was 6/5 and in the left eye 6/12 (refractive error +0.5 D sph. right and left).

The left eye contained a large fixed transparent globular cyst in the lower temporal quadrant of the vitreous. It extended from just below the macula to the ora serrata from 6.30 to 8.30 o'clock (Figure).

The wall was smooth and glistening and the retinal vessels and other details of the fundus could be seen clearly through it. No pigment was evident on the wall of the cyst. The rest of the media appeared normal.

Examination of the visual fields revealed an upper field loss consistent with the position of the cyst. The extent and appearance of the cyst has remained constant, as has the field loss, for a period of 6 months.

Discussion

As no case of vitreous cyst has been examined histologically their exact nature remains speculative. Undoubtedly the majority are developmental in nature, and their association with the hyaloid apparatus, lens capsule, and optic disc have shown this to be true. Cassady (1939) believed that the majority arose from the primary vitreous and certainly the primary vitreous is closely associated with the above-named structures at an early stage of development.

FIGURE *Transparent globular cyst in vitreous of left eye.*

Cysts may arise from the vitreous after the closure of the foetal cleft (Perera, 1936) and they have been described in association with colobomata. In the case reported here no association with developmental remnants could be found.

Cysts may form after liquefaction of the vitreous, as described by Teng and Chi (1957). Here anterior contracture of the vitreous occurs leaving the posterior part liquid; this may be described as a posterior vitreous detachment, the posterior hyaloid membrane becoming detached.

It is possible that this process had occurred in the case described above, and as liquefaction of vitreous is an undoubted factor in the production of retinal detachment, it is possible that this type of cyst is a precursor of retinal detachment.

Summary

A case of fixed vitreous cyst is described, and the possible aetiology of such cysts is briefly described.

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