ORBITAL STENOSIS AS A RARE COMPLICATION OF CATARACT SURGERY IN A CASE OF LEONTIASIS OSSEA*

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The most frequent difficulties in cataract surgery are the small palpebral fissure, the protruding or retracted globe, and the patient who "squeezes". Orbital stenosis is a rare complication usually caused by tumoral alterations of the skull by osteitis fibrosa, osteitis deformans, chronic periostitis, and ossifying fibroma which may result in the "lion face" described by Virchow (1863).

Case Report

A woman aged 58 years with a monstrous face (Fig. 1) was seen on April 8, 1958, complaining of poor vision in the right eye.

Examination.—The visual acuity in the right eye was 0·02 and in the left 0·15 (0·3 with +1·5 D sph.).

The right globe was pushed somewhat temporally and upwards with no proptosis. The eyelids, conjunctiva, cornea and iris were normal. The lens was a diffuse brownish-grey. There was no iridodonesis.

The left eye showed incipient cataract.

The nasal portion of the right superior maxilla was thickened and a linear scar was visible in the region of the lacrimal sac. The frontal bone and left maxilla showed only slight alterations but tumorous tissue had invaded both orbits, and there was no passage through the lacrimal ducts. The patient had no teeth, as they had fallen out years before one by one.

Fig. 1.—Right eye before operation.

* Received for publication May 23, 1962.
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Skiagrams (Figs 2 and 3) showed rough thickening of the facial bones, invading the base of the skull and orbits. The scale anterior and posterior were each about one inch wide, but the margo superciliaris ossis frontalis was also broadened. The bone-structure was rugged and patchy with increased content of lime. The nasal sinuses had disappeared, and bony proliferation was visible in their place. The sella turcica, scala posterior processus mastoidei, pars petrosa ossis temporalis, and cranial vault appeared normal. The lower medial part of both orbits was restricted, but the optic canal appeared normal.

**Fig. 2.**—Antero-posterior x-ray skiagram, showing ossifying growth of the facial bones involving both orbits.

**Fig. 3.**—Skull, showing extensive hyperostosis at the base of the cranium, and absence of teeth.

**Diagnosis.**—This was undoubtedly a typical case of leontiasis ossea involving both orbits. Considering the incipient cataract in the left eye, a right intracapsular cataract extraction was done on April 14, 1958.

**Operation.**—The difficulties began at the opening of the eye. No speculum fitted because of the enormous thickening of bony orbital margin. The eyelids were sutured to hold them open, and it was decided to attempt an intracapsular extraction with forceps, making a Kuhnt-Blaskovics conjunctival flap with complete iridectomy. The shrunken lens was very small, being only 3mm. in diameter.

**Result.**—6 weeks later the visual acuity in the operated right eye was 0·02 (0·25 with +10 D sph., + 3 D cyl., axis 180°).

**Follow-up.**—After 3 years (on May 31, 1961) the visual acuity of the right eye was 0·02 (0·5 with +11 D sph., + 3 D cyl., axis 180°). The left eye had perception of light with good projection. There was no pathological change in the right eye, but the temporal dislocation had increased and so had the tumoral growth of the superior maxillary bone and the left mandible (Fig. 4, opposite).

In the 3 years the cataract had advanced in the left eye (Fig. 5, opposite), and a left intracapsular cataract extraction was therefore performed on October 9, 1961. The visual acuity in the left eye is now 0·6 with +13 D sph.
CATARACT SURGERY AND LEONTIASIS OSSEA

Fig. 5.—Hindering tumoral deformity of right lower orbital rim. Cataract in left eye.

Fig. 4.—Poorly fitting spectacles on aphakic eye. The bone condition shows progression.

Comment

The patient stated that the disease began in her 15th year. The first symptom was lacrimation, and there was later a swelling on the lower lid and suppuration from the right eye. Painless swelling of the face started insidiously and is still progressing.

She had first been seen by surgeons 11 years ago, and her state in 1950 was recorded photographically by Somogyi (1960), who gave no details of the eye condition. Because the woman complained of reduced vision, the surgeons, supposing that the large deformity of the right maxilla impaired the sight, operated on the bony orbital margin below the ligamentum canthi interni.

Comparing Somogyi’s illustrations with those shown above, a marked increase is seen—especially in the beard-like appearance on the anteroposterior skiagram, but the condition is progressing only slowly. The eyes appear to be satisfactory. In the last 2 years the patient has had difficulty in breathing and eating and has begun to mumble.

Discussion

Many papers have been published on “leontiasis ossea”, in some cases invading the orbit. The eye complications (Philp, 1939; Reynolds, 1947; Alexander and Robinson, 1953; Jain, Sethi, and Parkash, 1956; Cory, 1957) consisted in paralytic convergent squint, proptosis, optic nerve atrophy, and dislocation or destruction of the globe. Cataract has never been mentioned as a secondary disease and is of course unrelated to the fibrous dysplasia.

Manifestations of creeping periostitis and diffuse osteitis may originate from an infected tooth or from the orbital cavity through suppuration of the
lacrimal sac (Virchow, 1896), but the monstrous, lion-like face may also appear in certain cases some years after trauma (Philp, 1939; Reynolds, 1947).

In our patient insidious manifestations began at puberty and spread into the cranial and facial bones as in the classic cases of Howship (1816) and Fourcade (Duke-Elder, 1952); the changed facial character seems to be due to reiterated long-standing peridacryocystitis.

Somogyi (1960) outlined the diagnosis of hyperostotic fibrous dysplasia, having carried out a biopsy in 1950. In his opinion the condition is not fatal, but the complications tend to shorten life, and intercurrent disease, intracranial haemorrhage, or respiratory disorders may be the cause of death. In the accessible literature I found only two cases in which the patient was, like ours, over 60 years old. In such cases cataract extraction must be performed in inconvenient circumstances.

**Summary**

A case of leontiasis ossea is reported in which cataract operations have been successfully carried out.

**REFERENCES**


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Br J Ophthalmo 1963 47: 173-176
doi: 10.1136/bjo.47.3.173

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