

Acute infarction of the choroid and retina

A complication of orbital cellulitis

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The clinical picture and complications of orbital cellulitis have been described by many authors from the time of von Graefe (1863) onwards. Busacca (1931) first reported retinal haemorrhages, venous thrombosis, and arterial embolism as disastrous complications of orbital cellulitis.

Case report

A man aged 24 years had right orbital cellulitis presenting with proptosis, immobility, marked chemosis, lid oedema, severe pain, and fever. The anterior segment was normal. The ocular media were clear. The visual acuity was reduced to perception of light. The fundus reflex was white except peripherally where the reflex was normal. The fundus showed the appearance of an infarct involving the sclera, choroid, and retina.

Quite a large part of the choroid and retina was replaced by scar tissue and this included the central area (Figs 1 and 2). After 6 weeks optic atrophy appeared, but no pigmentary changes occurred. The patient was given vasodilators, anticoagulants, and heavy doses of antibiotics with no improvement.

No pathological examination could be made as the patient refused excision of the globe.

Discussion

Although small embolic or thrombotic lesions in the uveal tract are common, they rarely excite clinical effects. These lesions are usually due either to organisms associated with inflammatory conditions or to neoplasms. Owing to the rich terminal anastomosed only a blockage of one of the larger feeding vessels of the choroid can produce a widespread, infarction. It appears ophthalmoscopically as a sharply localized scar-like lesion without outlying exudates over which the retina, pigment epithelium, and choroid are destroyed. The condition causes blindness when it affects the central area. Coats (1907) described a very similar case in a patient with posterior scleritis and attributed it to blockage of one of the entering arteries. The resulting infarct in Coats's case involved the choroid and the retina with complete necrosis, which was more extensive in the retina than in the choroid.

The findings in our case are illustrative. The absence of inflammatory signs, the absence of pigmentation, and the site of the lesion suggest that the condition is due to thrombosis of the tributary vessels of the choroid and sclera. This is apparently due to sepsis under pressure in a closed cavity or to the spread of inflammation to the walls of these vessels. This favours the view that early drainage in such cases may avoid such a disastrous complication.

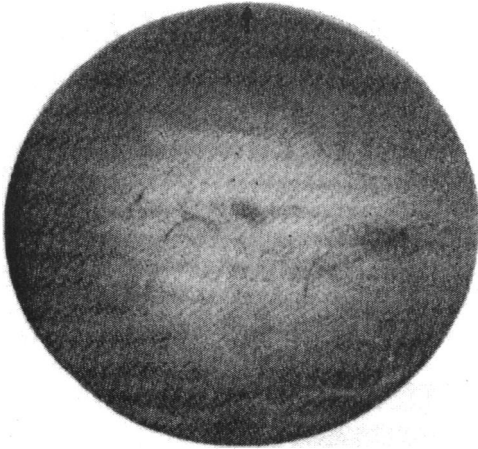


FIG. 1 Fundus photograph, showing white ill-defined infarct involving posterior pole with no overlying exudates or pigmentation

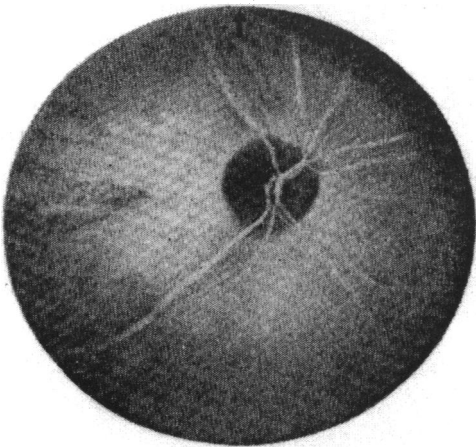


FIG. 2A Positive fundus photograph, showing optic atrophy and intact central retinal vessels

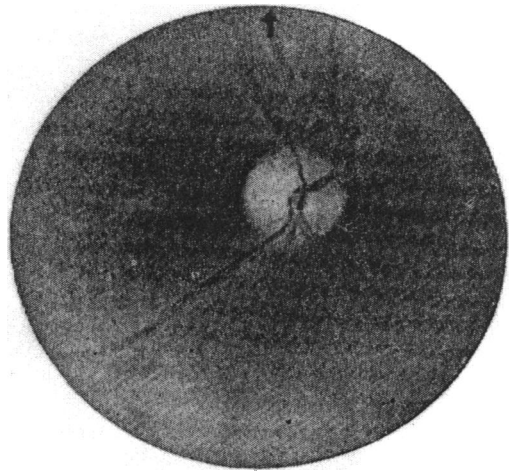


FIG. 2B Negative fundus photograph, same as 2A, showing infarct of choroid and retina

Summary

- (1) A case of acute infarction of the sclera, choroid, and retina after orbital cellulitis is reported.
- (2) The pathogenesis is discussed.

References

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