flora of the conjunctival sac of the traumatised eye; (*b*) the nature of the traumatising particle; and (*c*) the resistance of the corneal tissue to infection.

Summary

The bacteriological findings in 120 cases of hypopyon ulcer are presented and discussed. In contrast with previous workers, pneumococci have been isolated much less frequently. It appears that a wide variety of bacteria may be found in cases of hypopyon, while on occasions the infective element is probably lacking or altogether of minor importance.

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REFERENCES

DUKE-ELDER, SIR W. S. (1938).—Text-Book of Ophthalmology, Vol. II, London: Henry Kimpton.
RHODES, A. J. (1938).—*Jl. Path. Bact.*, Vol. XLVII, p. 202.
——— (1939*a*).—*Brit. Jl. Ophthal.*, Vol. XXIII, p. 25.
——— (1939*b*).—*Ibid.*, Vol. XXIII, p. 38.

INFANTILE DACRYOCYSTITIS TREATED BY SURGICAL DIATHERMY

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DURING the past few years, several cases of intractable dacryocystitis in infants have come under my observation and care. In each case, a history could be obtained of neglected epiphora at birth, followed by one or more attacks of acute dacryocystitis, with abscess formation and the development of a lacrymal fistula. All the infants concerned were undersized and undernourished, and no radical operation could be attempted until they had been hospitalised for several weeks and their general condition sufficiently improved to warrant a general anaesthetic being administered.

The usual method of dacryocystectomy produced disappointing results. Many difficulties were encountered, chief among them being the extremely limited field of operation, excessive haemorrhage, and adhesions existing between the sac and the surrounding tissues. Local reaction often caused considerable alarm. One infant developed a well-marked cellulitis, with a sharp rise of temperature to 105° F.: stitches had to be removed, and the wound drained, the condition taking many weeks to settle down.

It was with the object of overcoming such difficulties that I decided to attempt complete obliteration of the sac by the aid of surgical diathermy. The results have proved highly satisfactory.

Under chloroform anæsthesia, an incision is made with a small scalpel commencing about one millimetre above the internal palpebral ligament, and carried downwards and outwards to proportionately the same length as that made in an adult dacryocystectomy. When the incision is being made the fistula must be divided into two along its whole length. The wound is then deepened, the internal palpebral ligament divided, and the sac laid open. The wound cavity is plugged tightly with pledgets of wool soaked in a 1-1000 solution of adrenaline chloride.

The indifferent electrode of the diathermy apparatus is placed under the child's bare buttocks, and the packing removed from the wound. An assistant holds the edges of the wound apart with a pair of narrow sharp-pointed retractors. (The individual parts of a special small-sized Axenfeld retractor, such as I am in the habit of using in adult dacryocystectomies, are excellent for the purpose.) The current is adjusted to an adequate cauterizing strength and directed through a thin blunt-pointed probe into the wound. The interior of the sac is thoroughly cauterized, care being taken to include the infundibulum and the entrance of the nasal duct into the nose. Special precaution must also be taken to prevent scorching of the surrounding skin. Finally the divided halves of the fistula are cauterized. No stitches are required. A small dam of sheet rubber is inserted into the wound and left *in situ* for three days. No local or general reaction follows. The wound heals rapidly by granulation, and generally by the end of three weeks a small, neat scar has formed.

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