Medical Memoranda

Larval Conjunctivitis

Although larval conjunctivitis is well recognized in hot climates, it is rarely encountered among white patients. It is of interest, therefore, to describe three cases which occurred among British Service men in Egypt.

CASE REPORTS

Case 1.—An aircraftman was referred to the ophthalmic department with a history that while cleaning a 20-mm. cannon three days previously he felt something enter his left eye. Immediate examination by his colleagues revealed no foreign body. The eye became red and irritable, and watered. On examination the conjunctiva was seen to be inflamed and oedematous. With a loupe several tiny larvae were seen moving in the upper and lower conjunctival fornices and wriggling across the cornea. The larvae were less than 1 mm. long and owing to their small size and transparency were almost invisible to the naked eye. After cocaineization seven larvae were removed with pointed conjunctival forceps. The larvae were identified as those of *Oestrus ovis*. Two days later, following irrigations with bland lotions, the patient was symptom-free and the eye normal.

Case 2.—A healthy young soldier was referred to the ophthalmic department complaining of a sudden stabbing pain in the right eye, as if there was a foreign body in it. He had been cleaning an air cleaner from a tank with a mixture of petrol and oil, and he thought that some had entered his eye. On examination conjunctival injection was present and several larvae were seen crawling across the tarsal conjunctiva and moving further into the fornices. The cornea was criss-crossed with multiple superficial abrasions, a result of the larvae being rubbed across the corneal epithelium. Eleven larvae of *Oestrus ovis* were removed. The conjunctival irritation settled down the following day, and the patient was returned to his unit free from symptoms.

Case 3.—An aircraftman felt something fly into and out of his right eye while he was removing an aircraft propeller. The eye became painful and was irrigated several times. He was seen eight hours later, when the upper lid was oedematous, the conjunctiva injected, and the cornea showed superficial abrasions. Several worms were seen moving across the cornea, and thirteen were removed from the conjunctival sac. They were identified as larvae of *Oestrus ovis*. Three days later the conjunctiva was white and the abrasions healed.

COMMENT

In these cases it may be assumed that the fly deposited its young directly on the conjunctival surface, though *Oestrus ovis* is said to lay its eggs at times while flying, without alighting (Strong, 1942).

Oestrus (bot-fly) is one of the genera of the Oestridae. It is parasitic normally in the nasal passages and sinuses of sheep, and also infects man. Oestridae possess penetrating organs known as ovipositors and can lay their eggs beneath the conjunctiva (Duke-Elder, 1938). Most of the recorded cases have been infections by *Hypoderma bovis*, the larvae of which may penetrate the globe.

Robinson (1949) reported a case of larval conjunctivitis in a naval officer at Malta in whom three larvae of *Oestrus ovis* were found. The greatest number recorded is 77.

Prompt treatment of the condition is advised in order to prevent the serious complications of corneal ulceration and intraocular invasion.

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Arteriovenous Fistula Complicating an Amputation Stump

The occurrence of an arteriovenous fistula is an unusual complication of an amputation, and was thought to be a sufficient rarity to warrant publication.

CASE REPORT

On December 9, 1948, a man was referred to the Bradford Royal Infirmary complaining of pain in an amputation stump. The following history was obtained.

In 1936, when aged 17, he was involved in a road accident, a heavy vehicle passing over his left leg. An above-knee amputation was performed on the same day. He was subsequently fitted with an artificial limb, which he stated was never very comfortable but did not cause any pain. The stump was quite satisfactory until about a year ago, when he experienced pain accompanied by a throbbing sensation. The pain had increased during the past three months to such a degree that he had to discard his prosthesis for long periods, with resultant loss of earnings. He stated that he had no dyspnoea or palpitation.

On examination the amputation stump was satisfactory in shape and length. Posterior to the scar one could feel a distinct thrill over a pulsatile ill-defined mass coinciding with the heart beat. A loud bruit with systolic accentuation could be heard on auscultation over the mass. The B.P. was 140/98 mm. Hg. The pulse rate was 82, this slowing to 68 on pressure over the femoral artery in the groin. Release of the compression caused the pulse rate to rise to 80. A skiagram of the chest showed the transverse diameter of the heart to be increased, with prominence of the right ventricle. An arteriovenous fistula between the femoral vessels was diagnosed. An arteriogram was attempted with a view to revealing the type of connexion between the affected vessels. This was of little value, but it revealed a tortuous dilated vein in the stump.

He was admitted to the Infirmary on December 30. An incision was made along the medial aspect of the lower end of the stump, curving posteriorly to end below the mass. An irregular saccular pulsatile mass was exposed, the femoral artery entering this proximally. The femoral vein was grossly dilated and was seen to emerge from the mass, while numerous small vessels entered it. The main trunks and smaller vessels were ligated, the fistula excised, and the wound closed with drainage. Recovery was uneventful.

Attempts to demonstrate the vascular communication in the excised mass by radiology failed, but on dissection a well-marked arteriovenous fistula was demonstrated 2½ cm. from the cut ends of the vessels.

COMMENT

The fistula probably either originated as the result of a mass ligation of the damaged femoral vein and artery or developed from damage to the arterial and venous walls at the time of the original injury. The latter is the probable explanation, in view of the late onset of symptoms.

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In *British Health Resorts*, the official handbook of the British Health Resorts Association, information is given on the climate and special features of health resorts in Britain and the British Commonwealth. The particular conditions for which patients may be sent to a resort are listed under each one, and full meteorological data are included. The eighth edition of the handbook is obtainable for 4s. 6d. from the association at Bourdon Street, Berkeley Square, London, W.1.