tumour and in the cervical glands. Ten months after the first operation he was reported to be well, gaining in weight, and without local or other recurrence. The following year, however, there was further return in the glands, and the patient died from exhaustion.

HAEMATOMA OF THE LEFT ORBIT TREATED BY MODIFIED KRÖNLEIN'S OPERATION.

BY

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ABOUT four years ago A. M., now aged 38, a blacksmith, was fitting a shoe to the left forefoot of a horse when the animal, suddenly turning its head, struck him with it on the left temple. He felt somewhat dazed at the time, and experienced a sensation of fullness about the left brow and side of the head, but as there was no discoloration nor external bruise and his sight was unaffected, he thought little about it. Some months later he began to notice that when he stooped forward at his work, or bent down to tie a shoelace, his left eye tended to come forward. It returned to its proper position on raising his head again. He did not take any advice about it until he found that the condition was becoming more pronounced, especially when he turned his head to the left while bending. In that attitude his sight became dim. He at length consulted Dr. Tod of Leith, who examined his eye, but could find no obvious explanation for his complaint.

On January 2nd, 1909, he went of his own accord to the Royal Infirmary and was seen by Dr. J. V. Paterson, who also was at a loss to discover anything at fault until the patient had assumed a stooping attitude for a few minutes. The patient's statement that his left eye protruded so long as his head was low was then confirmed. Nothing was suggested as regards treatment at that time, and he returned to work.

In May, 1912, the patient got his left foot crushed by a horse stepping on it, and was off work for five weeks. When able to be about again he noted that his eye was becoming worse.

On the evening of June 19th he spent fully two hours reading the Insurance Act, and had no discomfort when he retired to bed. But on waking on the following morning he found that his left eye and lids were protruded, and that he could not move this eye in any direction. There was partial ptosis of the left upper lid and severe pain going from the left orbit to the back of his head. Dr. Tod advised him to go to the Royal Infirmary. When he came to the eye wards on June 22nd the ptosis, protrusion, and fixation were marked, but there was no definite tumour, solid or cystic, nor any nodulation to be felt in the orbit. There was no pulsation nor thrill detectable, nor could any bruit be heard over the eye or temporal region. He had almost full vision. There was nothing abnormal to be seen in the fundus. Examination of the nose, pharynx, and accessory sinuses was negative. Yet it was evident that there must be some mass about the apex of the orbit pushing the contents directly forward and interfering with the proper innervation of the ocular muscles. As it was obviously desirable to explore the condition of the orbit as far back as possible without in the first instance opening into the fascial sheath, the case appeared to Dr. George Mackay to be one well suited for Krönlein's operation. Mr. Cotterill now saw him in consultation, and concurred in the above opinion. The patient was therefore transferred to the general surgical wards on July 1st, and operated upon the same day.

Operation.

A horseshoe-shaped incision was made at the outer side of the orbit, with its base directed upwards and outwards, the lower limb of the incision being carried backwards along the zygoma. The periosteal capsule of the orbit was detached and pushed inwards with the eye. The orbital margin of the frontal, the malar bone, and the

zygoma were divided with a fine saw and chisel, and the bone thrown upwards and outwards with the skin flap. No new growth was palpable, but just inside the periosteum at the back of the orbital cavity a mass was felt which proved to be a haematoma. About a tablespoonful of recent clot was carefully removed by scoop and finger; and as nothing more could be felt except some thickening due to the wall of the haematoma, the wound was closed with horsehair stitches, and a collodion dressing applied.

After-History.

Two days later the proptosis was much less obvious, and by July 10th the wound was completely healed, and the eye apparently normal.

On July 24th the patient was discharged, and his only complaint was of slight diplopia on looking to the left.

Examined on December 12th, 1912, he reported himself fit and well. The vision of each eye was equal to 3. There was no protrusion in any direction. The movements of the left eye appeared to be perfectly performed, but he stated that he had slight diplopia on looking to his extreme left, and that he had occasionally slight pain and sensations of stretching about the left temple. He admitted, however, that these were quite trivial, and that he was practically cured.

THE INFLUENCE OF SEPTIC INFECTION IN THE CAUSATION OF EYE DISEASE.

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It is known that inflammation is Nature's attempt to repair damage. It follows, therefore, that an inflamed eye must have been damaged, and that the inflammation occurs at or near the seat of the damage.

Suitable treatment of an inflamed eye implies finding the cause of its injury in order to prevent recurrence or continuance of its action. Where damage results from a perforating wound or ulcer the cause is obvious; but in the majority of cases of scleritis, keratitis, iritis, cyclitis, and choroiditis the cause is obscure. Cause there must be, and, since physical damage is excluded, we regard the chemical effects of bacteria or their toxins as that cause. Now bacteria cannot arise within the eye by a process of biogenesis; they or their toxins come from without, brought by the blood stream.

For many years kinship between recent gonorrhoea and iritis, between syphilis, iritis, and choroiditis, and between inherited syphilis and interstitial keratitis has been recognized. So much so that these lesions are known as "gonorrhoeal" iritis, "syphilitic" iritis, and "syphilitic" choroiditis; whereas other forms of iritis are termed "rheumatic," and choroiditis is designated "myopic," "diabetic," or "traumatic," and the like.

Many of these inflammatory lesions are infective and depend for their origin on some septic focus, from which the exciting substance must travel to the seat of the disease by the blood stream. Whether the causative agent is bacterial or toxic is uncertain. On the one hand, attempts to grow organisms from the fluid of the anterior chamber in cases of acute non-suppurative iritis always fail; on the other hand, the anterior chamber is very like a joint cavity, and gonococci can be seen in and cultivated from the joint fluid in cases of acute gonococcal arthritis. Histological demonstration of the bacteria in the inflamed tissues is out of the question, because no eye is ever excised during the onset of the acute stage.

Direct evidence is therefore unobtainable, and the views here expressed are based on the evidence that has been obtained by treating the supposed source of the infection. The eye itself has often been left severely alone, and at the most merely given physiological rest by the use of a mydriatic and bathed with hot water.

Septic foci occur in three situations:

1. Along the respiratory-alimentary tract.
2. Along the genito-urinary tract.
3. On the skin or in a sinus leading from it.

The following cases are illustrative of the infective influence of chronic inflammation. The cases under review, with four exceptions, all occurred in my father's practice, and I am indebted to his notes for these abstracts. They