when a prophylactic measure is likely to be of use, and the evidence given before the Trevethin Committee on this point by different authorities was conflicting in the extreme. Individuals vary in their susceptibility to gonococcal infection, and for this reason it is advisable to wash out the urethra even although twenty-four or forty-eight hours have elapsed since exposure.

From the fact that irrigation is successful in safeguarding the patient in the great majority of cases, provided it is carried out within three to four hours of exposure, it may be surmised that the tissues are generally capable of dealing with the more rapid dissemination of organisms occurring through the lymphatics, for if this were not so prophylactic measures would be of little avail. But it is within the experience of most urologists that from time to time prophylactic measures fail, even although carried out within an hour of exposure. I can remember several instances in which the urethra was washed out immediately after exposure, either by a competent orderly or else by the patient himself, and yet gonorrhoea developed. It is possible that these failures of prophylaxis are to be explained by an inability of the patient's tissues to deal with the rapid lymphatic dissemination. The problem is complicated, however, for we know that not only do individuals vary in their resistance to the gonococcus, but also that different strains of the organism exist with different grades of virulence. The reaction of the tissues to these different strains varies, as is shown, not only by the acuteness of the attack that develops, but also by the length of the latent period.

It has been proved by experiment and by clinical practice alike that the ideal fluid for prophylactic irrigation is of a non-irritating nature with the maximum power of penetration. Could a bactericidal fluid be obtained which was capable of being absorbed to some extent by the lymphatics, it is possible that a still higher ratio of success might be achieved, and that the small percentage of cases in which prophylactic measures miscarry might be abolished. But before these ideals can be reached more research is necessary, and it is possible that the knowledge which will be of the greatest use will be that which throws light on the part played by the lymphatics in disease and in health.

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NYSTAGMUS IN AN INFANT.

BY

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AND

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THE following case has been under our observation for about two years and seems worth recording.

The patient is a child with paralysis of the third nerve and nystagmus. The mother has five children living, but she has also had two that were stillborn, and one that died shortly after birth. Several of her confinements have been "instrumental," the history of these suggesting some maternal malformation. When the patient was born instruments were again required, and soon after birth it was observed that "the right eye was too much closed." There was also a suggestion that the right side of the face was paralysed, but, if so, it soon passed away. It was further observed that the right eyeball diverged. At the end of two months the drooping of the right upper eyelid disappeared.

When first seen the child was 9 months old; there was no evidence of ptosis, but the reverse, for the lid was now unnaturally drawn up, exposing part of the sclerotic above the cornea. The right eye could only be closed imperfectly, and the child seldom closed it; even when in sleep the eye remained open. The right eyeball was still divergent; it could be moved up to, but not beyond, the middle line, and it could not be raised or lowered. The right pupil was dilated, and did not seem to react to light. Moreover, this eye had rotatory nystagmus. The left eye seemed normal, except that it also exhibited rotatory nystagmus.

A year later both upper eyelids seemed normal. The mother stated that the child now closed both eyes, but that the right

tended to open during sleep. The right eye was still divergent, but came in when the left was covered—not, however, beyond the middle line. The pupils were now equal. There was still rotatory nystagmus in both eyes, but the range was less. The child tended to turn the head to the left, as if endeavouring to use both eyes. The fundus in both eyes was normal.

A few months later the condition was much the same. When the child looked down, the right upper eyelid did not come so far down as the left.

Here, then, we have a lesion that in effect produces abeyance of function of the greater part of the higher area of the brain that controls the oculomotor apparatus of the right eye, and with this is associated nystagmus affecting both eyes. It is interesting to note that the paralysis of the levator palpebrae was replaced by spasm, thus resembling the cyclic affections of the third nerve.

Nystagmus occurring in a miner is not an entity by itself, and should not be considered in a detached manner. The neurasthenia that attends the later stages in the miner is in great measure fostered by the legal recognition of injury received and the elaborate provisions made for dealing with compensation.

Imperfect retinal images are common to all cases of nystagmus, or there is interruption of the transmission of these as afferent impulses. The miner straining to see while at work at the black and dark coal face has very imperfect images to guide his labours, while often the actual onset of the disorder is occasioned by a blow.

In the case here recorded there is interruption of the associated efferent impulses, with loss of some higher control. Nystagmus is sometimes associated with mental defect, and it is sometimes a terminal manifestation in exhausting diseases. In the background of all these there is probably loss or enfeeblement of the higher control, with consequent release phenomena.

SYMMETRICAL HYPERKERATOSIS OF THE
EXTREMITIES.

(? KERATODERMIA BLENNORRHAGICA.)

BY

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THE following case of symmetrical hyperkeratosis of the extremities is of interest because of its association with the gonococcus.

A married woman, aged 51, presented herself at the dermatological clinic of the Royal Infirmary, Cardiff, on October 16th, 1925. She stated that the condition started as a horny mass under the left great toe about a month previously and soon spread over the sole of the foot, simultaneously appearing on the sole of the right foot. There were soreness and burning sensations, and the mass of horny tissue caused pain on walking. Immediately previous to the attack her left ankle swelled and became painful; later, shortly before she came to the clinic, there were pain and swelling in the left knee.

On examination the soles of both feet, including the sides and backs, showed heaped masses of horny skin, broken here and there by cracks. At the points of the toes cornified matter projected for a quarter to half an inch, almost like horns. There was no exudation, and at one or two points where a portion of the mass had been detached the skin was pink, soft, and dry. In front of each knee there was a similar but less marked horny thickening in a well defined patch. There were also a few small patches of thickened epidermis on the left palm, but no rash of any kind elsewhere on the body. Her left knee was somewhat swollen, tender, and slightly reddened. Her left ankle was slightly swollen, but she made no complaint of pain. There was some general malaise.

I asked Dr. Eric Evans, in charge of the venereal disease clinic for women, to examine, and if necessary, treat her. Dr. Evans reported that on making a bimanual and other examination nothing abnormal was found, but that she had taken smears from the vagina, cervix, and urethra. On these Dr. Scholberg, pathologist to the Royal Infirmary, reported that gonococci were present in the films from the urethra and cervix, but not in that from the vagina. Dr. Evans then treated the case, giving trimine intramuscularly and rhubarb and soda mixture by the mouth.

By October 23rd the left knee was much improved, and the malaise relieved; there was still slight swelling of the left ankle. The urethra and cervix were treated with protargol, and contramine

pessaries were applied every night; hexamine mixture was administered.

On October 30th the joints were normal.

From November 6th to January 8th, 1926, local treatment only was employed.

On January 22nd, February 19th, and March 12th 0.25 c.cm. of contramine was given intramuscularly. On February 26th all local treatment was discontinued.

Films from the urethra, vagina, and cervix, taken on March 5th and 12th, were reported to be free from gonococci.

During this period the hyperkeratosis was not treated except by frequent soaking in hot water, and the condition slowly improved. Some increase, however, occurred on the palms, the right palm, which when first seen had shown only doubtful indications, being affected as well as the left. Both palms were nearly covered with thickened epidermis, and the normal lines were deepened. By the time that her treatment at the V.D. clinic ceased the patient had sufficiently recovered to be free from discomfort, and she stopped attending the hospital.

As it seemed desirable to obtain confirmatory evidence of the gonococcal origin of the condition a complement fixation test was made. This, however, could not be carried out till July owing to difficulty in obtaining a suitable antigen. Dr. Scholberg reported that the result was negative in all dilutions. The Wassermann test had been carried out in October, 1925, with a negative result in all strengths except 40 per cent., where it was weakly positive.

On September 3rd, 1926, the patient attended at the dermatological clinic at my request, when I found that the masses of horny epidermis had largely disappeared, but that there was still a border of the condition at the sides and backs of the feet, especially at the heels, also on the balls of the toes, especially the great toes. A little keratosis was noted at the points of the toes. On the knees there was a thin patchy scattered keratosis, and the palms showed patches here and there, rather more on the left palm. There was some scaliness and discoloration of the skin at the outer side of the left ankle.

It is difficult to be sure that this was a case of keratoderma blennorrhagica, first described by Vidal in 1893, and by others since. In favour of this diagnosis are the rapid increase of the eruption when it first appeared, its symmetry, its association with inflammation of two joints, and the fact that gonococci were definitely found in the smears from the urethra and cervix. On the other hand, there were no obvious signs (discharge or inflammation) in the genital region, the complement fixation test was negative, and there was no evidence in the skin lesions of any vesicle formation, such as Sabotka¹ and others have described as marking some of these cases. It may, however, be urged in reply to the last objections that the fixation test was not applied till long after the films from the genital region had been found negative, and that the absence of vesicle formation was due to the chronicity of the accompanying condition, which even in the joints was only subacute. Other possible causes seem excluded, so I think one is justified in believing that the case was one of keratoderma blennorrhagica.

REFERENCE.

¹ Sabotka: *Dermatol. Woch.*, February 15th, 1913, p. 181, and February 22nd, p. 218.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

TWO-STAGE OPERATION FOR CLEFT PALATE.

ALL surgeons have experienced difficulty in obtaining uniformly good results in operations for cleft palate when the cleft is complete, involving both hard and soft palate; when the cleft is exceptionally wide and its closure involves considerable shifting of the lateral flaps; and when the condition exists in adult or adolescent patients as the result of neglect or failure of earlier operation.

Success depends upon adequate circulation in the flaps and their approximation without tension. Failure is due to the difficulty experienced, in the types of cases referred to above, in securing both conditions. The disturbance of circulation involved by the free lateral incisions and extensive detachment of the lateral flaps necessary to ensure their approximation without tension is considerable, with the result that their nutrition is lowered and their power to heal greatly diminished. It is a common and disappointing experience to find that after an apparently

successful operation union of the flaps has failed wholly or in part. None of the devices used for eliminating undue tension, though of themselves adequate, have given certain results, and the reason for the failure appears to be impaired vitality of the flaps due to inadequate circulation.

For some time, in cases where the necessary disturbance of tissue is such that the circulation of the flaps is likely to be seriously reduced, it has been my custom to perform the operation in two stages. At the first sitting the lateral incisions and separation of the flaps are carried out and they are freed until they approximate without tension. No attempt is then made to pare the edges nor to suture them together. Two silkworm-gut sutures, passed through the flaps some little distance from their inner margins, are tied just sufficiently tightly to keep the edges close together, the lateral incisions are packed with gauze, and the patient is sent back to bed.

The second stage of the operation is performed about ten days later. By that time the circulation of the flaps has been re-established and their vitality is adequate for healing to take place rapidly and smoothly. Very little disturbance of the flaps is called for at the second operation. The edges are pared in the usual way; they are gently pushed together and sutured with fine silkworm-gut. Two silkworm-gut tension stitches are again inserted to take tension off the suture line, and the lateral grooves are packed with gauze.

By this method a very great improvement in results has been obtained, and many cases which were regarded as inoperable, or in which previous operations had failed, have been successfully treated. Among these were a number of patients whose ages ranged from 12 to 28 years.

I am indebted to Mr. Harold Round, honorary dental surgeon to the Queen's Hospital, for suggestions and help in devising a method which would secure both the conditions essential for success.

Birmingham.

WILLIAM BILLINGTON, M.S., F.R.C.S.

PULMONARY EMBOLISM FOLLOWING CHILDBIRTH.

A CASE very similar to those recorded by Drs. W. J. Young and T. McCulloch (November 6th, p. 835) came under my notice in April last. I received an urgent call, and on arrival about five minutes afterwards found the patient dead. She had been confined about two weeks previously, and the midwife who had been in attendance stated that everything had been normal. The patient had been getting up for three or four days previously; the day before she had been out of doors for about an hour, and had felt quite well, except for a slight pain in the left groin. On the morning of her death she arose feeling quite well, and while preparing her husband's breakfast she suddenly fell down and died in a few minutes.

This was obviously a case of pulmonary embolism following femoral thrombosis. These cases impress upon us the careful watch which should be kept for the somewhat insidious onset of thrombosis during the puerperium and the prolonged rest that is necessary once the condition is established.

Warrington.

J. J. MANNING, M.B., B.Ch., N.U.I.

A PATIENT of mine recently died with dramatic suddenness from pulmonary embolism following childbirth. She was a married woman, aged 36, and the confinement was her sixth.

Delivery was normal; my last visit to her was on the fourth day of the puerperium, when to all appearances she was well. I had not left the house more than ten minutes before she died. Her husband explained to me how, during a conversation with him just after my departure, she sat up in bed and suddenly complained of very severe pain in the left chest. She gasped for breath, clinging to the bedside, her face, first ashen grey, rapidly became cyanosed, and in a few minutes she expired.

I was unable to ascertain any other possible cause of death, for I had examined her chest and heart at my first visit.

Tarland, Aberdeenshire.

C. G. SALVESEN, M.B., Ch.B.Ed.