

unrivalled material in bone tubercle cases and his wide experience made him an ideal judge. My own cases of bone tuberculosis, limited in number, have been successful, sometimes dramatically so. Mr. Gauvain has investigated in this direction much more extensively, and his reports to date have been most encouraging. Several of those present have also seen the results in visits to my dispensary, and some have made tests, and up to now all reports but one have been favourable.

Led by the results of the effect in experimental tuberculosis in animals, I have for some time been using it in

lymphatic engorgement, and is applied twice weekly, and should cover all round the neck from ear to collar bone. The staining of the skin is easily removed with vaseline. The trino-bro is the best preparation for these cases unless they are picric sensitives, which is rare.

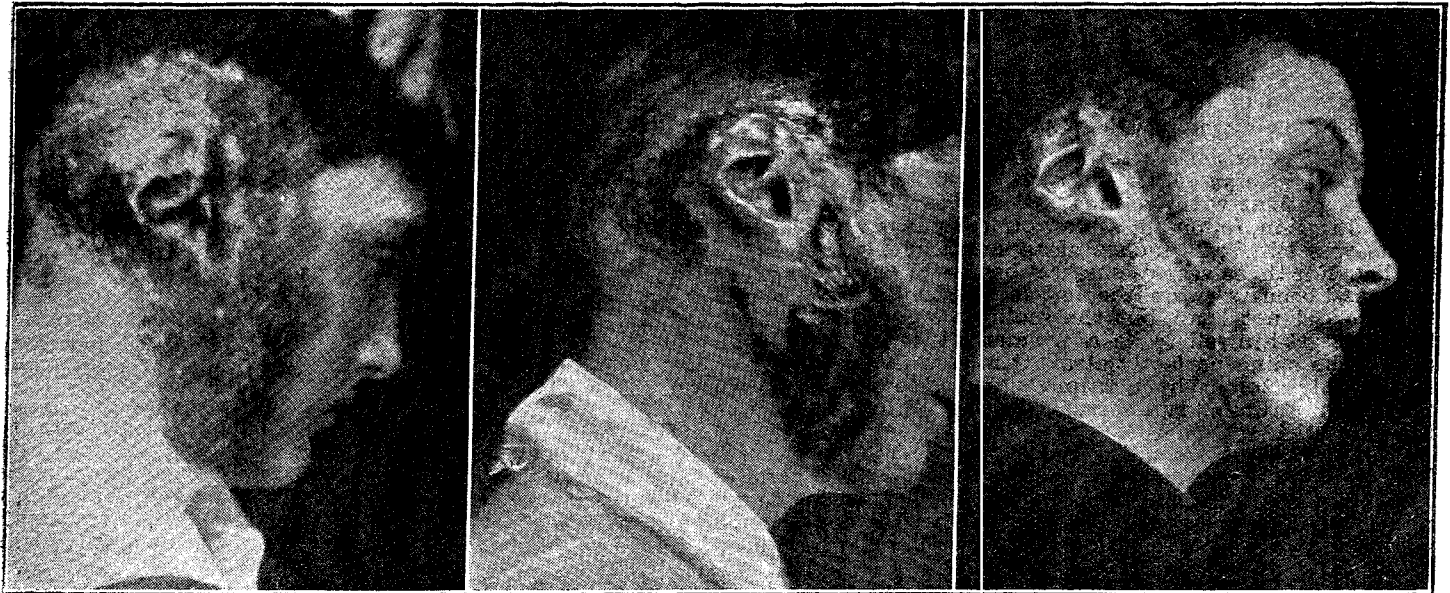
The lighting-up of phlyctens must always cause temporary discontinuance of the treatment. They should be treated with tuberculin as described in THE LANCET,³ or by a dilution of picric bro 1 part, to cod-liver oil 3 parts, brushed on with a small camel-hair brush after the eye has been made anæsthetic. These phlyctens are liable to occur in nasal

Face Lupus Vulgaris. Nine years' duration. Previously treated by X rays, freezing, &c.

9

10

11



9. Before treatment.

10. During progress; ulceration defined.

11. Five months after.

other forms of tuberculosis, notably abdominal, with satisfactory results. The exact method and dosage is still a matter for investigation. Observations have shown that very small doses by the stomach produce gastric irritation. The whole question is a matter for a further communication.

Methods of Treatment.

So far one may say that the brass treatment leaves available four preparations of specific potency in tuberculous deposits. These preparations are: (1) Brass paste, an oily preparation of a compound of basic sulphate of zinc and copper; (2) brass oil or bro, a preparation of the soluble portions; (3) and (4) both these preparations, in combination with approximately 1 per cent. of trinitrophenyl, called respectively trino-brass and trino-bro. Great care is needed in preparation as they are easily decomposed and rendered inert at comparatively low temperatures, the whole process going into weeks. Instability is naturally a condition, for, if the combinations were not weakly allied they presumably would not obtain their specific action. These preparations are more efficient, especially in facial cases, when mixed with adrenalin and cocaine or eucaine.

As far as ascertained, the remedies are entirely innocuous to the non-tuberculous except when given by the mouth. With the tuberculous hypersensitive care in applying the simple brass preparation must be taken to avoid auto-infection from tuberculous absorption, producing loss of health, lowered weight, pallor, and metastatic abscesses. But generally ample warning is given. This danger does not hold of the trinitrophenyl remedies, but here the picric sensitiveness of the external cutaneous layers must be watched for. I am inclined to think that picric sensitiveness encourages local tuberculous extension in cases showing it.

The application of the brass paste is made every two or three days under zinc plaster. The bro is applied either as a foment on gauze with jaconet covering once, twice, or thrice weekly, as indicated, or only painted on the skin when a rest from active treatment is required. The bro collar is the most efficient way of dealing with glands of the neck or scrofuloderma; it very rapidly diminishes the

lupus, especially of the interior mucous membrane. Outside these precautions I know of none other, when the remedy may be used with the greatest freedom. Another refractory condition amenable to treatment is dactylitis. The swelling reduces, and unless the bony enlargement is great the finger returns largely to a usable condition.

Note.—Arrangements have been made whereby a supply of these preparations can be obtained from Mr. Jack L. Robinson, pharmaceutical chemist, Middlesbrough, Yorks.

³ THE LANCET, 1917, II., 157.

THE HYSTERICAL PERPETUATION OF SYMPTOMS.

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MUCH has recently been written concerning the treatment of hysterical disorders in soldiers, especially at neurological centres. There is great scope for similar work in general hospitals; the same methods will effect very marked improvement, and even cure, in cases not usually regarded as hysterical.

All surgeons are now familiar with the type of case in which improvement, not amounting to complete recovery, follows a nerve suture, yet there may be much more recovery than is apparent, masked by what is now an hysterical disability. Similarly, many abnormal gaits, following severe organic lesions, are hysterical. Rapid improvement, even amounting to cure, can be obtained in a few minutes or hours by methods similar to those employed to-day in the treatment of hysterical disorders, and summed up in the word "psychotherapy."

In treating these conditions there is one factor indispensable to success—i.e., the patient's own belief that he can be cured. At neurological centres this point is gained by the "atmosphere of cure" prevailing. The patient is in a ward with others who until recently were, they tell him,

just as bad as he is. They have been cured, *everybody* who comes there is cured, and the newly admitted patient soon views his own case as one in which cure will be effected also.

My own experience has been gained largely at an orthopaedic centre, and at such centres there is apt to be an atmosphere of chronicity. A patient with, say, an hysterical drop-foot is mixed with the crippled and patients whose recovery must be a matter of months. It is hard for him to believe that his foot is curable in an hour, and it is impossible for him to *expect* it. But by putting him into a ward amongst others like himself, some already cured, his views may be altered. Such a patient if put to bed in these surroundings for 48 hours will be found confident of speedy recovery when he goes to the treatment-room at the end of that time. All that are then needed are persuasion and re-education and a large store of patience.

Hysterical Disabilities.

As examples of hysterical disabilities thus treated I will cite the following case:—

CASE 1. *Scoliosis of nearly four years' duration with 2½ in. apparent shortening of left leg, cured in 70 minutes.*—Fig. 1 A shows a patient with well-marked scoliosis of nearly four years' duration, following a blow on left side of pelvis. The pelvis was tilted; 2½ inches of apparent shortening of the left leg. For three years a surgical boot with a sole 2½ inches thick had been worn on the left foot. Whilst wearing this boot he did not limp, but the scoliosis was more marked. He believed himself to be a permanent cripple. Fig. 1 B shows the spine perfectly straight after one hour and ten minutes' treatment by manipulation and persuasion. He could then walk and run normally with no limp, in ordinary boots.

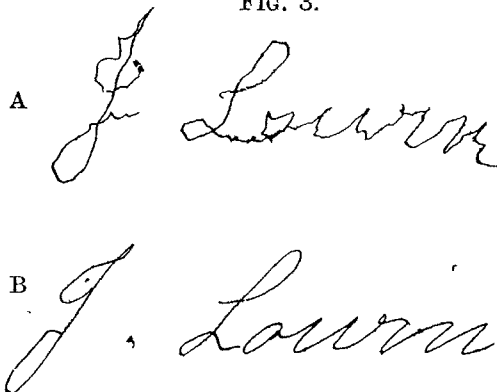
CASE 2. *Contracture of hand of three years' duration cured in 40 minutes.*—Fig. 2 A shows a contracture of right hand of three years' duration, following a through-and-through bullet wound of the arm. Patient was seen in conjunction with Major J. L. Joyce, R.A.M.C.(T.). Patient had been

deafness, mutism, tremors, vomiting, abnormal gaits, &c., with which the war has made all medical officers familiar.

Hysterical Perpetuation of Symptoms after Organic Lesions.

The point I wish to emphasise is the wide scope for such work in cases not usually regarded as hysterical, and which seldom reach the neurologist. There has been some severe organic disability with only partial recovery. There is a

FIG. 3.

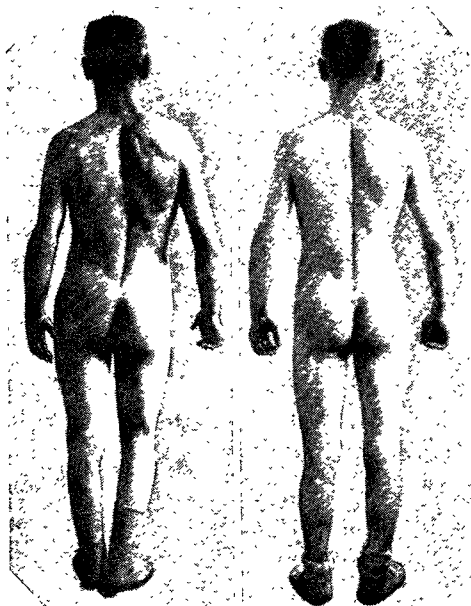


Tremor, patient also stammered. Duration 16 months. Treatment 40 minutes. Stammer also cured (Case 3).

tendency to ascribe this remaining disability to permanent organic damage, and the cure is much slower or less perfect than need be. But it is frequently functional. The following case is an example:—

CASE 4.—Wounded in October, 1917. Bullet entered the chest at posterior axillary border about 2½ inches below acromion process on left side. It passed forwards and inwards, damaging circumflex nerve, and lodged just behind second rib on left side, near sternum. When first seen by me 13 months later, he was able to perform only limited

A FIG. 1. B



A, Lateral curvature (spine marked out with grease pencil); duration 4 years. B shows the condition after 70 minutes' treatment (Case 1).

FIG. 2.

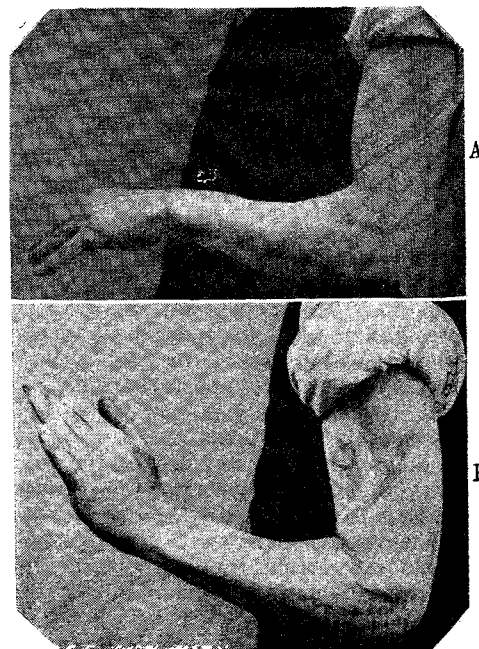
A



B

A, "Wooden" rigidity of hand; no movement at all; duration 3 years. B shows the result of 40 minutes' treatment (Case 2).

FIG. 4.



Musculo-spiral nerve divided by missile; nerve suture. (Case 5.) B shows extension voluntarily performed after 35 minutes' persuasion and education.

invalided out of the Army as a permanent cripple with pension for 40 per cent. disablement over a year before he was sent to an orthopaedic centre for treatment. The hand was blue, oedematous and shiny, and absolutely rigid, the fingers being immovable owing to intensity of spasm. In Fig. 2 B he is holding his hand open, after 40 minutes' treatment. He was then able to perform all movements of the hand normally, and the photograph shows the wrinkling of the skin of the fingers which followed the disappearance of the oedema.

CASE 3. *Hysterical tremor of 16 months' duration cured in 40 minutes.*—Fig. 3 A is the signature of a man with tremor which he had had for 16 months following a fall down a ravine in the dark. The tremor was very quickly overcome (Fig. 3 B) as soon as full muscular relaxation was obtained by manipulation and persuasion in 40 minutes.

Such cases are purely hysterical. Many other cases could be quoted of the hysterical paralyses, contractures, blindness,

abduction of the left shoulder, the arm not coming up to the horizontal in spite of obvious efforts. Very marked wasting of the deltoid, which only responded feebly to strong faradism; some blunting of sensation over it. Improvement having ceased, he had been discharged from hospital many months previously; the loss of power was thought to be due to the wasted deltoid. After a quarter of an hour's treatment by manipulation and persuasion he was able to raise both arms smartly and bring his hands together over his head without flexion of the elbows or wrists. The left deltoid was still much weaker than its fellow and there was still imperfect sensation, but recovery had been masked by a superimposed hysterical condition.

The following case illustrates a similar state of affairs following nerve suture:—

CASE 5.—Wounded by a shell on April 8th, 1917. The wound was 3 inches above the left elbow; compound com-

minuted fracture of humerus and complete division of musculo-spiral nerve. The wound was septic; after about three weeks several small pieces of bone were removed under an anæsthetic. In three months the humerus was soundly united, with practically perfect movements at the elbow-joint; the wrist-drop was controlled by a "cock-up" splint. In August, 1917, suture of musculo-spiral. Nerve found completely divided; bulb at each cut end. The two bulbs were excised, leaving a gap of about 2 inches; end-to-end suture; considerable tension at point of union. The wound healed by first intention. Three months later there was some return of voluntary movement in the extensors and the analgesia was less marked. Twelve months after the nerve suture there was 50 per cent. of recovery in the extensors and sensation was normal. Massage, galvanism, faradism, ionisation, and electric baths, persisted in all this time, produced no further improvement and he was discharged from the Army in October, 1918.

When I saw him first, soon after Christmas, 1918, there had been no further improvement since August, 1918. He was able to make some extension of the wrist and of the fingers; movements were jerky, accompanied by some spasmodic contractions of the flexors. In Fig. 4A the scar of the operation for nerve suture can be seen above the external condyle. The photograph was taken whilst the maximum amount of extension of the wrist and fingers was being made. He was treated by persuasion, manipulation, and re-education for 35 minutes, when voluntary extension was as shown in Fig. 4B. Movements were now smooth and easy, and he was able to use his hand normally, the total recovery from the original lesion being practically 100 per cent.

CASE 6.—Patient, aged 37, sent to me with the following history:—Three and a half years previously he had had an acute illness; the main characteristics were slight pyrexia and general malaise, pains in legs, some difficulty with bladder, and increasing weakness of legs. He was in bed for about three months. The symptoms largely subsided, but he was left with the "weak legs," and his back was bent. On examination he was very bent, and hobbled with two sticks. The legs showed the signs of a lesion of the lateral tracts, weakness, spasticity, exaggerated tendon-jerks, clonus, and a bilateral extensor response; abdominal reflexes absent. His condition had been *in statu quo* for about two years; yet a great part of this, in spite of its organic basis, proved to be the perpetuation of symptoms by suggestion. After manipulating the legs and back, with persuasion to increase the range of movement voluntarily, for half an hour, the patient was able to stand upright and to walk without sticks. There was still some spasticity of the legs, but it was not very noticeable except when he tried to run. He was delighted with his improvement, and took some pride in exhibiting it to others. The physical signs were, of course, unaltered.

Conditions in which Functional Disabilities Occur

The last three cases are instances of the hysterical perpetuation of symptoms long after the original causes for them had disappeared. This is really a very common occurrence, and many similar cases might be cited. In a multiplicity of conditions this is liable to occur, especially in those which run a chronic course; nerve suture, neurolysis and capsulotomy of a traumatic neuroma must be especially mentioned. Disordered gaits are perpetuated after fractures and injuries of the lower limbs; sciatica is also specially liable to produce this condition of affairs, and many other diseases with a chronic or semi-chronic course.

Several factors help in suggesting the perpetuation of symptoms, as, for instance, the use of crutches and sticks. An officer had his foot severely crushed by a motor lorry, but there was no fracture or dislocation. An extensive ecchymosis of the dorsum cleared up in some three weeks, but he was unable to bear any weight at all on the foot when he got out of bed, and he asked for a pair of crutches. After 10 minutes' practice, however, with persuasion and encouragement, he was able to walk and even to run normally without limping, and there was no pain in the foot. On the following day he voluntarily went for a walk of six miles. In this case, only one of many, it is probable that had the patient been given a pair of crutches the idea of the disability would have been confirmed, and a disordered gait would have resulted when he discarded them after, perhaps, many weeks or months. Many other things may be the means of suggesting a perpetuation of a disability, and in some cases it is, no doubt, due to auto-suggestion.

A very large number of chronic cases of all kinds will amply repay time spent in treating what are really hysterical disabilities. Much patience and painstaking are needed, but great improvement can be effected, and sometimes complete cure.

AN INVESTIGATION OF CASES OF INFLUENZA

OCCURRING IN THE WOOLWICH DISTRICT DURING SEPTEMBER, OCTOBER, NOVEMBER, 1918.

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Introductory.—During the summer of 1918 it fell to the lot of one of us (B. H.) to investigate the then prevailing and mild epidemic of "influenza." The results were not published, but briefly, though proving interesting as regards the effect of this disease on the leucocyte counts, they were entirely negative as regards the isolation of *B. influenza*. In making this the second series of researches on influenza the first thing that we wish to insist upon is *that we have used exactly the same methods and the same blood medium* (Gordon's tryptic agar plus rabbit's blood) in investigating this epidemic, as in the mild one dealt with in the summer. In addition, we have examined the claims of a medium which was highly recommended by Dr. John Matthews¹ as suitable for *B. influenza*.

Our researches have been conducted *without selection of cases*. That is to say, except for refusing to examine material sent under conditions impossible for good bacteriological work, we have taken and examined anything sent down to us that seemed to offer possibilities.

General technique.—Sputum has been collected where possible in wide-mouthed sterile bottles with rubber corks. These were distributed to the ward sisters with instructions to send the first sample coughed up and not to collect a lot. This sample was then washed in sterile broth and plated out on tryptic agar plus rabbit's blood. The broth washings were also incubated. In some cases it was plated out also on Dr. Matthews's medium. Direct smears were examined also in every case. Naso-pharyngeal cultures were made with West's swabs and inoculated on to the media *at once* where possible.

Blood cultures were taken by venepuncture in the ordinary way and 10 c.cm. was distributed in varying amounts into broth tubes.

Results.

Naso-pharyngeal swabs.—The naso-pharynx in all cases seen by us has been injected and very sloppy. A prominent feature is the greatly swollen and elongated uvula, and to this uvula must partly be attributed the irritable cough and retching in many cases. Some cases have epistaxis from the great engorgement of the parts. Naso-pharyngeal swabbings have been positive for *B. influenza* in 80 per cent. of cases. Other organisms have been present, such as *M. catarrhalis*, pneumococcus, streptococcus.

Sputum.—The sputum has varied greatly. Some specimens have been thick, sticky, and stained with blood to varying degrees. This blood staining is not the "rusty" staining of croupous pneumonia, but something much brighter and in some cases amounting almost to hæmoptysis. Other specimens have been of a yellow-green "nummular" type, while others have been white and slimy. Generally speaking, we consider the white slimy specimens occur just at the beginning and when the case is clearing up, particularly the latter. The blood-stained ones indicate pneumonia, or at least severe capillary bronchitis, and that the man is a case to be anxious about. The yellow "nummular" ones seem to be chiefly where the trouble is mainly bronchial or where only a small broncho-pneumonia patch or so is present. We have seen rather more of the yellow "nummular" than the blood-stained type in the laboratory.

The result of examination of direct films of sputum has shown 70 per cent. positive for *B. influenza*, and of cultures from these same cases 75 per cent. positive. It has been interesting to us to find in some cases negative for *B. influenza* by direct film that the organism has turned up on culture. In one or two cases we failed to grow the organism in spite of its obvious prevalence as seen in the direct film. One may

¹ THE LANCET, July 27th, 1918.