tions of the serratus magnus were well seen and felt on the left side, but on the right could not be recognised either by sight or touch. With the arms grasping the back of a chair, the right half of the chest moved much less than the left on forced inspiration. All the movements of the arm requiring the assistance of the serratus magnus or deltoid were much interfered with.

It would seem that there was some affection of the circumflex and posterior thoracic nerves accounting for the pain in July, the paralysis of the posterior thoracic having brought about the characteristic dislocation of the scapula. The comparative rarity of the condition has induced me to write this note on the case.

As to the cause he could give no hint. He was accustomed to hard work and carrying heavy weights, but I could not trace any definite lesion or find any on examination. A tight belt round the scapula enabled him to work fairly well. In addition fly blisters were applied over the origin of the posterior thoracic nerve, and the affected muscles rubbed with a stimulating liniment.

Mr. Cotterill, who kindly saw the patient for me at the Edinburgh Royal Infirmary, recommended also the hypodermic injections of strychnine into the substance of the muscle, and the use of the interrupted current.

The patient made a complete recovery in two months.

NOTES AND QUERIES ON SMALL-POX.¹

By CHARLES PORTER, M.D., D.P.H.CAMB., M.R.C.S.,
[Medical Officer of Health for the County Borough of Stockport.]

As regards the question, Is compulsory vaccination necessary? few medical men will, I think, be found to answer it as it stands otherwise than affirmatively. A possibly more debatable point to my mind is raised by the query, At what age is compulsory vaccination most beneficial? Although the first decade of life is by no means the most favourable for contracting small-pox, the protective influence, and therefore the desirability of infantile vaccination (as shown by the enormous and universal preponderance of small-pox deaths amongst unvaccinated as compared with vaccinated children) cannot be successfully disputed. On the other hand, until revaccination be made compulsory during the third quinquennium, it seems open to doubt whether the single vaccination which is now compulsory might not be with advantage postponed until that period is reached. The protection then afforded would be effected at a more susceptible age, its duration would be more permanent, and much of the existing objection to vaccination traceable to a sentimental, but natural, dislike to inflict suffering on very young and, perhaps, weakly children would be obviated. In addition, the abandonment of infantile vaccination would render inapplicable the cogent excuse which vaccination in infancy appears at present to afford many adults for refusing revaccination after exposure to infection.

As regards the value of revaccination of families in the presence of small-pox, no one who has had to deal in a preventive capacity with this disease can have failed to have been impressed with the striking protective results of the operation, and the disastrous consequences of refusal to submit to it. In the district for which I act, several cases of this kind occurred of so convincing a nature, that the authority ordered the particulars to be circulated in handbill form in the neighbourhood in which the sufferers lived, with a fairly good temporary result as regards increase in the number of those seeking revaccination.

Under these circumstances, and also as regards all tramps, I believe that revaccination should certainly be compulsory, and that, when not performed by the medical officer of health or his special deputy, a certificate of strict compliance with Government requirements might, with great advantage, be insisted upon. An official school register of vaccination marks would undoubtedly be a step in the right direction, as at present schoolmasters appear unwilling, for fear of giving offence, to facilitate the acquisition of information by the

medical officer of health as to their scholars' condition in regard to vaccination.

An easy method of estimating the size of vaccination marks is desirable. I am aware that it has been suggested to mark them with an aniline-blue pencil, and take an impression therefrom on paper, but this result is not sufficiently easily expressible in accurate terms of ordinary measurement.

Before quitting the subject of vaccination I desire, with your permission, to formulate the following queries:

1. Are the effects of primary vaccination performed during the second decade of life to be regarded as permanent?

2. Can the protective influence of revaccination be annulled by severe constitutional illness? I am disposed to believe that it can, because I have successfully revaccinated two individuals who since their previous revaccination had suffered from a severe attack of typhoid fever and acute rheumatism respectively.

3. If a patient suffering from an apparently well marked attack of small-pox is successfully vaccinated whilst so suffering, are we therefore to conclude that his illness is not small-pox? In the early part of 1893 I noticed in the *BRITISH MEDICAL JOURNAL* (Feb. 11th, p. 291) a communication from Dr. Gornall, of Warrington, in which this conclusion was apparently adopted, the case in question being one in which there had been a traceable exposure to the infection of chicken-pox, but no known exposure to that of small-pox. Questioning the soundness of this apparent conclusion, I shortly afterwards vaccinated, at the time of their admission to hospital and on the fifth day of the disease, two pit sinkers suffering from well-marked small-pox and with a history of recent exposure to small-pox infection. In both cases the result was successful, and followed a fairly typical course. I have nevertheless not a shadow of doubt that the disease from which these men were suffering was true small-pox.

Adverting now to the appearance of small-pox in the scarlet fever wards of the Westhulme Hospital at Oldham, I may give the following details of a somewhat similar occurrence at Stockport, and of the causes to which it was traced:

On January 13th, A. B. was admitted to the Isolation Hospital suffering from scarlet fever. On February 15th this child presented a papular eruption, which rapidly became typically variolous. As minute precautions had been ordered and adopted to prevent communication between the scarlet fever and small-pox pavilions, a searching investigation was made into the occurrence, and it was elicited that a nurse had secretly kept a cat in the scarlet fever pavilion, and that this cat had been seen at the small-pox end. This vehicle of infection was effectually eliminated, the ward thoroughly cleansed with corrosive sublimate solution, and fumigated while damp with SO₂. On February 28th, however, a second case of small-pox occurred in the same scarlet-fever ward, from which the patients were again immediately removed, and the disinfecting process repeated. Happening at this time to go into the ward (then empty) of the small-pox pavilion, which is nearest to the scarlet fever end, a smell of sulphur was distinctly perceptible, and on examination a large aperture was found in the floor at one end of the ward, through which the hot-water pipes made their exit, a similar opening existing in the floor of the scarlet ward. By getting beneath the floor, and placing lights beneath each of the apertures referred to, the existence of a subterranean passage communicating with both pavilions was established, and on pouring oil of peppermint and boiling water through the aperture at the small-pox end, its odour soon became strongly perceptible at the scarlet fever end. Evidently the higher temperature of the scarlet fever ward which was in use had aspirated infected air from an empty ward of the small-pox pavilion, through this underground passage for the hot-water pipes, to the scarlet fever end. This structural defect having been remedied, no further cases of secondary small-pox have since occurred.

Finally, as regards our safeguards, I am unable to agree with the view that thorough disinfection of houses in which small-pox has occurred is uncalled for. Surely, if the germs of this disease can retain their virulence after a passage of hundreds of yards through the open air, they are doubly likely to do so in the close atmosphere of ill-ventilated houses, and if that be so, it certainly behoves us to leave no stone unturned to remove or purify all possible fomites.

In discussing our safeguards no reference has, I think, been made to the nightly inspection of common lodging-houses. In Stockport the disease was so repeatedly reintroduced by vagrant lodgers at these places, that a nightly inspection between the hours of 9.30 p.m. and 11 p.m. of every lodging-house in the town was organised with excellent results. My committee, at my suggestion, also authorised a young medical man to accompany the inspector for each one of the four sanitary subdistricts every fourth night, supplied him with lymph, and paid him 2s. 6d. for every vaccination he effected.

¹ Read before the N. W. Branch of the Society of Medical Officers of Health on October 13th, 1893.

In this manner over eighty of the permanent *habitues* of these lodging-houses, who are specially liable to contact with infected strangers, were by vaccination protected themselves, and thereupon to a considerable extent ceased to constitute a standing menace to the health of the inhabitants at large. This nightly inspection led, in addition, to the early detection and prompt removal of several cases, and kept the lodging-house deputies on the alert.

As regards the apparently healthy inmates of infected houses, I may state that since the recent completion of our present very perfect steam disinfecting chamber and baths, it has in several instances been found easily practicable to remove these individuals at once thereto, and while they are bathing and being revaccinated to disinfect their clothing. When discharged thus purified, they were at once permitted to resume their ordinary avocations, but kept under sanitary surveillance for a fortnight. In consequence, to some extent at any rate, of these and other measures, and notwithstanding 22 fresh introductions of the disease, Stockport has since remained comparatively unscathed in the midst of a sea of small-pox, the whole number of cases which have occurred being only 29. Of the 22 fresh introductions, 10 were tramps, 3 were inmates of a common lodging-house in constant contact with tramps, 1 was a travelling music-hall singer, 2 came from a house in Ardwick where small-pox had broken out, 1 had attended a funeral thirteen days before in a village where the disease was then prevalent, 1 had been delivering beer at infected houses in other districts, and the remaining 4 could not be satisfactorily traced. Of the 7 secondary cases reported, 1 was revaccinated six days after first exposure, the attack being greatly modified; 5 (of whom 2 died) had refused revaccination, whilst to 1 sufferer revaccination was not specially offered, as she was not known to have been exposed to infection till her own case was reported.

As regards the system of quarantine in small-pox, I have seen it very successfully applied by Dr. M. K. Robinson, of East Kent, during a limited outbreak in Dover in the spring of 1892, and I am inclined to believe that in small communities it is applicable with a fair prospect of success, unless there be a large number of practically simultaneous occurrences of the disease.

TREATMENT OF PSORIASIS (SYPHILITIC) BY THYROID EXTRACT.

By JOHN GORDON, M.D.,

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THAT there is a profound alteration in the nourishment of unhealthy skin by thyroid feeding may at once be granted, but as yet our knowledge of the how or the wherefore is but vague and tentative. It is possibly too early to speculate whether the thyroid acts through the glandular systems, or by alterations set agoing in the character of the nutritive properties of the blood, or in the modification of nerve energy at the affected parts. But the ultimate generalisation of the actions will be helped by reports of cases in which therapeutic action has been observed. As a contribution to this end the following case is recorded:

A woman, aged 49, appeared in the month of July, 1893, at the Aberdeen General Dispensary, complaining of an ulcerated mouth. Examination revealed an ulcer on the inner side of the left cheek, about half an inch from the angle of the mouth. Iritis was also present, and the post-cervical glands were shotty. The ulcer was cauterised by nitrate of silver, and iodide of potassium was given internally. The ulcer rapidly healed, and the iritis disappeared. The iodide of potassium treatment was continued till the end of September. At this date she first noticed an eruption on the skin. It was diagnosed psoriasis. It was well marked on the palms of the hands and on the soles of the feet. Five minims three times a day of the alkaline solution of arsenic were ordered, in addition to the iodide of potassium. Chrysophanic acid ointment was also prescribed. She continued under this treatment till November 4th, 1893. There was only a very slight improvement during this time. But on some parts of the body there was undoubtedly an amelioration of the condition.

It was resolved to give thyroid extract a trial. All treatment was stopped for a week. On November 11th, on which day the thyroid extract was first given, the following notes were taken by Mr. Thomson, one of my clinical clerks: "There was a well-marked eruption of psoriasis all over the body—scalp, face, trunk, upper and lower extremities; a few spots were also visible on the palms of the hands and soles of the feet.

The eruption involved the flexor as well as the extensor aspects, but was more marked on the extensor aspects. The eruption was discrete, the spots showed dirty-grey-looking scales on a hyperæmic and infiltrated base. They averaged from a quarter to half an inch in diameter, and were not more than an inch apart on the arms and trunk, but on the legs they were somewhat more widely scattered. On the extensor aspects of both elbows, over the upper part of both scapulae, and on the nape of the neck were large confluent desquamating patches. There was an ulcerated patch on the buccal aspect of the left cheek near the angle of the mouth." At this date she was ordered to take 20 minims daily of Brady and Martin's thyroid extract.

November 18th. Appearance of the eruption little changed; the bases of the patches seemed somewhat less hyperæmic and more clearly defined. The intervening skin looked healthier and more elastic to touch.

November 25th. A most marked improvement; the scales have almost entirely disappeared; the hyperæmia of the bases much diminished; the skin between the patches smoother and more elastic. Patient expressed herself as feeling ever so much better in her general health; her own expression was that "she felt ten years younger."

December 3rd. The scales and hyperæmia have quite gone. There is left a tawny brown pigmentation where the patches of psoriasis were. The whole skin has a soft, well-nourished character.

December 7th, on which evening she was exhibited at the Medico-Chirurgical Society, she had still maintained the improvement.

December 20th. Thyroid extract stopped. No return of the psoriasis. The treatment by iodide of potassium resumed. The general improvement has not continued. She complained of a feeling of *malaise* and pains in the arms and legs.

There is no doubt that this was a case in which syphilis was present; and at first it was a moot point whether syphilitic psoriasis was a suitable case for thyroid treatment. So far as the psoriasis is concerned it gave highly satisfactory results, and in the first weeks of treatment the whole aspect of the patient greatly improved. Whether the thyroid extract had any controlling influence on the specific poison beyond the increase of vitality which accompanies its treatment is difficult to say.

It must also be remarked that she was under the influence of arsenic for a considerable time, and that this drug has a potent influence on the nutrition of the skin. It is also granted that a slight improvement had occurred before the thyroid treatment was initiated; but the active set of changes that took place, and which led to the complete removal of the psoriasis between November 11th and December 3rd, forms a marked contrast to the slow alteration that was visible from the previous treatment. It may be possible that the condition had just reached the point at which it was to resolve under the effects of the iodide and arsenic, or that some hindrance to their action was removed by the thyroid treatment. And this might indicate that in cases in which psoriasis did not yield to thyroid treatment alone, alternate administration of arsenic might be employed. On the whole, however, I am inclined, keeping in recollection the well-marked action of the thyroid treatment on the nutrition and function of the skin, to claim for it a therapeutic value in this case.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

SPORADIC CRETINISM.

Most of your readers were probably, like myself, much interested in Dr. Bramwell's graphic description of his case of sporadic cretinism in the BRITISH MEDICAL JOURNAL of January 6th. As bearing on the question of the benefit derivable from thyroid feeding in such cases, I would beg the space for a few remarks on an interesting example of the disease that came under my notice previous to the days of such treatment.

Some years back I was asked if I objected to seeing a young man aged 24 amongst my out-patients at the Shadwell Children's Hospital. My intention to refuse was forestalled by the entrance of the patient himself. The man of mature age presented the appearance of a child of about 2 years old, was somewhat under 3 feet in height, and entered the room with one hand clasped in his mother's and the other clutching a doll. On inquiry, I found that my patient possessed both a melancholy and historic interest. He was E. D., the first of the four patients brought before the Royal Medical and Chirurgical Society in the paper that originally brought the subject of sporadic cretinism into prominent notice in this