I might say the universal custom, has been to regard man as he appears; we have a face-value standard of mental and physical health, but we never rely upon the latter in the same way as we are prepared to accept the former. If the bodily health together with the functions of such organs as we consider to be important are satisfactory, the patient is regarded as an A man, notwithstanding that the mental outlook may be scarred with former illness. There is no better example of the danger of specializing than the study of mental and physical medicine. Theories become practice, and man has been viewed from these two standpoints, which at some periods have been so divorced as to have little or nothing to do with each other. The physiologist and the biochemist have been slowly linking these divorced subjects together, and it is the duty now of all clinicians to widen their vision and not only to make use of the beginnings that have already been made, but to add to their knowledge by a systematic investigation of mind states in all physical disease. We shall find that mental symptoms have their value, and that, whilst some are primarily hurtful, others may be largely, if not entirely, protective to the organism, and may form part of its armament in its struggle to survive. But, as with all functional disturbance, they may remain long after their purpose has ceased to exist. Habit is the state towards which everything is working, and it is one of the duties of the physician to see that baneful influences do not persist if it is possible to correct them. The physical hygiene of the future must include a knowledge of mental hygiene, just as mental hygiene must take note of the welfare of the body. From this several advantages will accrue: mental processes will be better understood and mental changes will become matter of commonplace; fears of insanity will be replaced by an enlightened understanding, and the incidence of the graver forms of mental disorder will be lessened.

THE TREATMENT OF RODENT ULCER BY CHROMIC ACID SOLUTION.

BY

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THE medical man who practises in a district remote from large hospital centres is often faced with difficulties in the way of treatment not experienced by his more favourably placed colleagues. When, for example, the case is one requiring special treatment, as with x rays or radium, and the nearest hospital equipped with the necessary outfit is several hundred miles away, the problem becomes very real. To the working man the expense of the journey and the time lost from work mean a great deal, and, unless his life is at stake, he must simply do without the treatment and go on using such palliative measures as can be obtained locally.

Rodent ulcer is a disease of local malignancy which can be successfully treated by excision, by escharotics, or by radium. The two former involve the destruction of the healthy along with the diseased tissues, while the latter is not always available. Many patients object to operation, and in some cases the site of the ulcer renders operation difficult, if not impossible, without leaving a disfiguring scar. Excision of a rodent ulcer from the lower eyelid, for instance, may be followed by an ectropion more unsightly if less serious than the original ulcer.

The treatment of rodent ulcer by the application of chromic acid solution, 10 per cent. in distilled water, was suggested to me in 1910 by Sir George T. Beatson, senior consulting surgeon to the Royal Cancer Hospital, Glasgow. I began practice in Wick a few months later, and during the following four years treated 19 cases successfully. I intended publishing my results then, but five years of war intervened. Since 1919 I have treated 6 other cases, and am satisfied that the results justify this article. In only one case was the diagnosis confirmed histologically, but the history and appearance of the others made the diagnosis clinically certain. With two exceptions, all the cases were comparatively early—that is to say, ulceration had taken place, but the soft tissues only were invaded. In one the alae nasi and part of the septum were destroyed and the nasal bones exposed; after four months' treatment the raw surfaces were covered by healthy granulating tissue, except a small portion of the floor of the nose. Unfortunately this patient died of pneumonia before treatment could be completed. In the other case the ulcer was small and situated on the right ala

nasi, penetrating to the cartilage, which formed its base. This case proved most intractable, and eleven months' treatment was required to effect a cure, but during that time the patient did not lose a single day off work, and now, twelve months later, a slightly dimpled scar is all that remains.

As all the cases were treated in the same manner I will describe one more before proceeding to the details of the treatment.

The patient, a man aged 70, consulted me in November, 1919, about an ulcer of six years' duration affecting the lower eyelid towards the inner canthus. In shape it was roughly elliptical and its upper border within a quarter of an inch of the margin of the lid. Removal of the crust which covered the floor of the ulcer was followed by purulent discharge. He had no pain, but a haunting fear that sooner or later his eye would become affected. After four and a half months' treatment the ulcer was healed. It had filled up and there was only a slight depression to indicate where it had been. The scar was supple, and hardly distinguishable from the surrounding skin. There was no contraction, and consequently no ectropion.

Treatment is carried out as follows: When the crust, if any, has been removed and the floor of the ulcer cleansed with plain sterile water, chromic acid solution is applied to it and to the surrounding skin by means of a fine camel-hair brush. This is repeated daily until the patient complains of pain coming on about an hour after treatment and usually lasting an hour. Each succeeding day the pain is of longer duration and signs of irritation appear. The surrounding skin becomes red and oedematous, and at this stage, varying from the fifth to the tenth day, the treatment should be discontinued and a bland ointment substituted till the pain and inflammation subside. Plain vaseline or equal parts of boric and zinc ointments may be used. It is immaterial what emollient is chosen so long as the active treatment is interrupted at intervals regulated by the degree of pain and irritation present. During the first few weeks the ulcer may actually increase in size and depth, and it is well to warn the patient of this before beginning treatment; otherwise he is apt to conclude that he is getting worse instead of better. In my earlier cases I found that repeated application of the chromic acid solution was not infrequently followed by the formation of a dense firmly adherent crust exceedingly painful to remove. To obviate this I now apply to the floor of the ulcer a pledget of cotton-wool which absorbs the exudate and is easily changed next day. When the extreme limit of malignant invasion of the surrounding skin has been reached further changes in the appearance of the ulcer take place. Its raised border becomes flattened and covered with healthy-looking epithelium which gradually advances along the floor of the ulcer towards the centre. The chromic acid applications are now attended by less pain, and eventually the ulcer appears to be completely healed. Should this occur during the use of the ointment chromic acid should again be applied for a few days, and if the disease has been eradicated no effect whatever will be produced. Should, however, the apparently healthy epithelium thinly cover tissue in which malignant elements are still present it will break down, and a continuation of the treatment will be necessary. Chromic acid diluted to 10 per cent. strength, while inimical to rodent ulcer cells, does not affect those of healthy tissue however tender.

On two occasions I have tried its effect on epithelioma of the lip. In one case the patient refused operation, and within a fortnight of the commencement of treatment the ulcer had doubled in size and, at the urgent request of the patient, was dealt with surgically. The other case was one of incipient epithelioma at the junction of the upper and lower lips with extensive leucoplakia of both lips. The chromic acid solution was employed with a view to getting rid of this before operation. It was eminently successful so far as the leucoplakia was concerned, but here again the epitheliomatous ulcer was stimulated to rapid growth and was shortly afterwards effectively removed by Mr. Henry Wade of Edinburgh.

I would like at this point to mention an instance not of rodent ulcer, but with the same tendency to local malignancy, successfully treated on similar lines.

The patient, a woman over 70 years of age, suffered from a papillomatous growth of the left cheek of several years' duration. She had been operated on six times, with a recurrence on each occasion at the end of three to seven months. On her refusal to submit to further surgical treatment she was sent in 1909 for radium treatment under the care of Dr. Dawson Turner of Edinburgh. She was treated for 43.3 milligram hours, and left hospital apparently cured, but five months later there was a recurrence at three separate parts of the scar. I saw her a year later and after

three months' treatment with chromic acid the growth again disappeared. Nine years later she died, but there had been no recurrence.

This case illustrates the importance of a form of treatment easily accessible. Had the patient resided near the centre where radium treatment was carried out, instead of three hundred miles away, the recurrence could have been dealt with at once. As it was, she could not afford a second journey. It may be argued that in widely scattered districts, where the patient lives ten or twenty miles from his doctor, this treatment is almost as inaccessible as radium. I had one such case.

A man, aged 60, came to me complaining of an ulcer which he had noticed three years previously and which he had endeavoured to cure by many and varied ointments of the proprietary type—and his ulcer slowly increased in size. It was situated at the angle formed by the lobe of the right ear with the skin extending from it towards the angle of the jaw and measured about three-quarters of an inch in diameter. As he informed me that it was quite impossible for him to attend daily for treatment I gave him a prescription and wrote down in detail the procedure to be followed, asking him to report weekly for observation and further guidance. I did not see him again for two months, and by that time the ulcer had almost healed. Eighteen months later he dropped in casually to tell me that his ulcer had completely healed a month after I had last seen him and had not again broken down.

The duration of the treatment where the soft tissues only are affected averages three and a half months. Where bone and cartilage are invaded the patients should be strongly urged to go where more effective treatment can be obtained. At the present day no patient suffering from rodent ulcer should be allowed to reach that stage.

Of the various local remedies that have been used successfully in the treatment of rodent ulcer, and whose action, like that of 10 per cent. chromic acid solution, is selective, salicylic acid, pyrogallol, and arsenious acid may be mentioned. Of these, arsenious acid, according to Dr. Norman Walker² of Edinburgh, has given most satisfactory results. In his *Introduction to Dermatology* he discusses very fully the treatment of rodent ulcer, and, in describing the use of drugs whose action is caustic and selective, he rightly emphasizes the necessity for care in the choice of the drug as well as in its application. Of the effect of the arsenious acid preparation favoured by him he says: "In twenty-four hours the part has swollen up and the pain experienced is very severe, so severe that it is often necessary to give the patient morphine." Farther on he says, "In many cases one course of this treatment is successful." I admit that, in comparison, the course of treatment by 10 per cent. chromic acid solution is long and even tedious, but it is less drastic in its action, the onset of pain is more gradual and need never be permitted to become unbearable. Its advantages discount both the length of time taken to effect a cure and the slight pain and discomfort experienced during its exhibition. The remedy is cheap, and it is easy to use. The destruction of tissue following its use is limited to diseased elements. The patient is spared the expense of a long railway journey and is able to continue at work throughout the treatment. The resulting scar, wherever situated, is soft and pliable, and there is no contraction with consequent disfigurement. And finally, should recurrence take place, the patient has the satisfaction of knowing that a simple and effective remedy is immediately available.

REFERENCES.

¹ Dawson Turner, *Radium*, 1910, p. 53. ² Norman Walker, *An Introduction to Dermatology*, seventh edition, p. 324.

PROPHYLACTIC RECTIFICATION AND VERSION AT THE ANTE-NATAL CLINIC.

BY

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Down to the close of 1921 the correction of malpositions (right occipito-posterior) and malpresentations (pelvic and transverse presentations) in the ante-natal department of the Edinburgh Royal Maternity Hospital had attained only a partial success. There were numerous cases, especially of malpositions (chiefly right occipito-posterior) in which neither one-handed nor two-handed palpation applied by the abdomen or the vagina or by both routes sufficed to bring the back of

the foetus round to the anterior aspect of the mother. Postural plans were also experimented with—for instance, a modified Trendelenburg position was used in some cases in the hope that the presenting part would slip out of the pelvic brim and become movable above it; but success was only occasional. Dr. F. J. Browne and I often talked over the subject, but without devising anything which was wholly satisfactory.

On November 12th, 1921, Dr. R. C. Buist of Dundee published in the *BRITISH MEDICAL JOURNAL* (p. 782) "A note on the early recognition and corrective treatment of occipito-posterior positions," in which he described the method of rectification by means of towel pads. There were some details in the procedure which were not clear to me, so I got into communication with Dr. Buist, who was kind enough to explain and illustrate the method by diagrams. From the beginning of the present year (1922) the method by pads has been employed in the ante-natal department for the correction of occipito-posterior positions of the head. The results for the six months from April 1st to September 30th, 1922, have been most satisfactory. During this period 509 expectant mothers attended the ante-natal clinic as new cases. Amongst these there were 26 instances of right occipito-posterior position of the foetal head, and of these 24 were rectified by pads into anterior positions, whilst 2 remained posterior, notwithstanding the treatment. In most of the cases the rectification was into the right occipito-anterior position, but in some the rotation was continued until the head was found to lie in the left occipito-anterior position. In one case which has occurred since the end of September the original position was diagnosed as left occipito-posterior and pads were applied, the rolled one on the left side and the flat one on the right; on the following day it was found that the presentation was a breech, and external version was then performed, producing a right occipito-anterior position. This was the only occasion on which the application of the pads in posterior vertex positions was followed by the production of a pelvic presentation.

The method adopted was that recommended and described by Dr. Buist as follows:

"A binder is laid under the patient and two towel pads are prepared. The first is rolled to about the thickness of a forearm, the second is folded to a flat pad 6 or 7 inches square. The rolled pad is pinned to the binder in such a position that when the binder is firmly secured the pad will lie close in front of the anterior superior iliac spine behind and parallel to the trunk. The flat pad is pinned so as to lie on the limbs, pressing them backwards. It is sometimes useful to roll the patient to the side opposite the trunk and by hand bring the trunk as far as may be over to that side. The binder is then pulled firmly home."

In the Edinburgh clinic it has rarely been found necessary to take the patient into hospital for the rectification. The malposition is detected at the clinic; the patient is asked to return the next morning and to bring with her a binder, two towels, and safety pins; the pad and binder are then applied and the patient is allowed, after a short rest, to go to her home; she returns the next morning, when it is usually found that the position is anterior. Occasionally the pads have to be reapplied, rectification not having occurred at once. As has been said, the procedure only failed twice. Such failures are to be ascribed to the late date in pregnancy which has been reached, and the low level of the foetal head in the mother's pelvis. Very rarely was the posterior position re-assumed after rectification.

It is difficult to find a completely satisfactory explanation for the corrective effect of the pads. Probably the rolled pad simply makes the existing position an uncomfortable one for the foetus; he will be mobilized, and, using the flat square pad to press his limbs against, will move into the position in which he is able to lie at rest, the right or the left anterior. I hardly believe it can be claimed that the rolled pad gets in behind the foetal back in the right occipito-posterior position and pushes it forward. The cases in which the position is found to be the left anterior are probably those in which the pads have produced a marked reaction by the foetus, and the back has thus been carried right across the abdomen. It is unnecessary to emphasize the great advantage this method of dealing with occipito-posterior positions possesses over the difficult and often uncertain plans of rectification applicable in labour; personal experience enables me to say with assurance that it is also much better than any method of manual replacement in pregnancy.

In the series of 509 pregnancy cases in the six months referred to 56 pelvic presentations were detected. In