particular value of flexible scar tissue at the flexures of the body and at tendinous areas need not be mentioned.

In large voluntarily supported institutions the economical aspect—the saving in time and material—is also a consideration.

REFERENCE.

¹ W. R. Wilson: Detoxication in the Treatment of Burns, BRITISH MEDICAL JOURNAL, January 8th, 1927, p. 54.

TREATMENT OF ENCEPHALITIS LETHARGICA ASSOCIATED WITH PARKINSONISM BY ULTRA-VIOLET RAYS.

BY

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My object in publishing these few cases is to interest those members of our profession who are not yet acquainted with the possibilities of treatment of this unhappy condition by means of ultra-violet rays. I cannot claim that this line of treatment works miracles, but in some cases it appears to be definitely beneficial.

Some months ago I treated a case of chronic ulcerative tonsillitis by means of ultra-violet rays (mercury vapour lamp); as the tonsils healed quickly, and a persistent rhinitis cleared up also, I was led to think that the local application of ultra-violet rays to the mucous surfaces of the nose and throat might be beneficial in encephalitis lethargica. On June 8th I began to apply it to cases to which I was already giving general ultra-violet rays with what, I think, is a certain measure of success.

My technique, except in Case 5, consisted in stripping the patients in the usual way and application of the multiple carbon arc lamp, back and front, for gradually increasing periods up to half an hour, according to the patient's capacity, twice weekly. In addition to this, local treatment was given to the mucous surfaces of the nose and tonsillar area by a mercury vapour lamp with adaptor for a period of not exceeding two minutes to each area.

The points which seem most noticeable are: improvement in gait, feeling of well-being, diminution of salivation, and relaxation of the fixed expression of the face.

Case 1.—A schoolmaster, aged 33. The onset of the disease occurred two years before he was sent to me in April, 1926. Parkinsonism was well developed; he was unable to do anything for himself. The multiple carbon arc lamp was used twice weekly. After the third application he was able to turn over on the couch; after the fifth he walked much better; after the eighth he was able to help to dress himself; his facial expression also improved very much. On May 22nd he was sent to Birmingham to Dr. Eden for lavage of his sphenoidal sinus, etc.

Case 2.—A schoolboy, aged 14, contracted the disease a year previous to coming to me on April 16th, 1926. He was in a very poor condition—was extremely breathless on going upstairs, and the journey of eight miles in the car upset him very much; his heart was considerably dilated. He had three applications, but died suddenly in his own home four days after the last application.

Case 3.—A coppersmith, aged 42, had had the disease for two years before coming for treatment on April 16th. His improvement has been very marked from the commencement, particularly as to his expression, feeling of well-being, and locomotion. On June 8th, in addition to his general treatment by means of the multiple carbon arc lamp, I gave him short local applications to the nose and throat by means of an adaptor fitted to the mercury vapour lamp; this was continued twice weekly, and has appeared to be very beneficial. He is much straighter in posture, and can use his hands much better.

Case 4.—A joiner, aged 42. Onset of disease two years previous to coming for treatment on April 16th, 1926. The Parkinsonian syndrome was present, but not so well developed in this case; salivation was very troublesome. He also had very marked stiffness of the jaw. He ceased to come on July 27th, but was considerably improved; his jaw is still very stiff, and he is having difficulty in eating.

Case 5.—A married woman, aged 38, in whom the disease first appeared two years previously. She was delivered of a healthy female child (still alive and well) a week after the onset. Came for treatment on April 16th, 1926. She was treated throughout by means of the mercury vapour lamp, local and general, and her condition is much improved.

Case 6.—A labourer, aged 32. Duration of disease fifteen months. He had very marked tremors, and used to get up from bed to come for treatment. He showed some improvement, but not much. He ceased to come June 28th, and has since been confined

to bed. I am inclined to think that this is a case of disseminated sclerosis. He came on April 16th, 1926. Same treatment as above.

Case 7.—A fruiterer, aged 19. Onset of attack two years previously. His gait and posture were very bad; there was much salivation. The posture and gait have much improved, and he is much freer from salivation. He was very mischievous when he first came, but his demeanour is much improved. He came on April 16th, 1926. Same treatment as above.

Case 8.—An insurance agent, aged 49. Date of attack indefinite, but he had been going downhill for six months, and had developed Parkinsonism. Treatment was started on July 14th, 1926, and the patient shows considerable improvement.

Case 9.—An engine-driver, aged 60. Duration of disease three years. He came once, but did not like the treatment, and would not come again.

BREATHING EXERCISES WITH MOVING ARMS.

BY

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SOME systems of physical training still advocate the movements of the arms during a breathing exercise.

Arm movements hamper the expansion of the thorax and the descent of the diaphragm. As soon as the arms are raised the movements of the thorax are lessened, in order that it may supply a steady base on which the arms can pivot; also to supply a fixed base for the muscles which arise from the chest and are attached to the arms to work from. In addition the shoulder girdle has to be moved. Besides the arm group other muscle groups are immediately contracted. The supporting groups of muscles, which keep the body in position while the heavy arms are moving, come into play. The muscles of the leg contract to steady the pelvis, in order that the spine and thorax may be supported on it, and not be swung off their balance by the heavy arms.

The fixation of the pelvis enables the abdominal muscles to contract and hold the thorax firm; this prevents the ribs from rising. If, in addition, the head is thrown back, as is usually recommended, the abdominal muscles can be seen and felt to be rigidly contracted. This effectually prevents the descent of the diaphragm. The spirometer and *x* rays confirm these statements. Keith, in a Hunterian Lecture, says that arm movements increase the pressure in the abdomen. This also impedes the diaphragm.

The mere fact that no gross movement in these abdominal muscles may be seen does not prove that no contraction is taking place. The thin muscle fibres of voluntary muscle supplied by the sympathetic non-medullated nerves may be very strongly contracted without gross evidence to a casual eye, but it can be felt. (Compare the rigidity of the rectus abdominis.)

Nobody would advise the performance of a breathing exercise with a half-pound dumb-bell in each hand. Yet the addition of half a pound to the many pounds weight of each arm would not add much to the total weight which the body has to manipulate. The weight of each arm can be realized by holding it out at right angles to the body for a moment or two. If the weights of dumb-bells are gradually increased to a maximum, the full effect of weights (such as the arms) pivoting on the chest can be observed.

The contraction of the arm muscles spreads not only to the supporting groups—those of the legs, back, and abdomen—but to the whole musculature of the body. Even the jaw and facial muscles are involved. So fixed does the thorax become that breathing is entirely suspended, the chest and diaphragm cease to act. The weight of the arms alone has this effect of hampering the respiration, the dumb-bells only intensify it. The weight of the arms is unbearable to anyone in a condition of respiratory distress. Such interference with respiration also impedes the circulation. Neither, when the arms are raised, can any pull occur on the ribs to elevate them, any muscles tending to oppose the raising of the arms being elongated and their tone inhibited (Sherrington's proprioceptive reflex and reciprocal action of antagonistic muscles).

Exercise of the thorax for normal breathing can best be brought about by graduated runs in the open air. After running, if the respiration is left to itself the movements of the thorax and diaphragm will be abundant and natural.

The arms should not be moved. The respiratory muscles and apparatus have been exercised day and night since birth and well know how to breathe. Breathing is entirely self-adjusted and requires nothing more than to be saved from interference.

No artificial exercises, unless a lesion is present, whether they cramp the chest or not, can possibly improve on this self-adjustment possessed by every human being, inherited through many ages. Also, artificial exercises designed to strengthen the muscles of the chest are not breathing exercises. We do not breathe by muscular strength.

Bankart, in his article on physiology of muscular action (*Proceedings of the Royal Society of Medicine*, November, 1925), says, "There is too much arm and leg wagging in the scheme of most gymnasts."

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

COINCIDENT HERPES AND VARICELLA.

THE two following cases, both occurring in the same family, of a definite herpes associated with chicken-pox, are of interest in view of a possible common origin of the two conditions.

The elder child, a boy aged 10 years, on December 21st, 1926, had shooting pains in the right side of the chest, and several raised red spots were noticed by the parents along the line of about the seventh rib. During the following two or three days other spots appeared at intervals over the chest, back, and forehead; there was no complaint of pain.

The younger child, a boy aged 4 years, on January 6th, 1927, had slight malaise, followed the next day by red papules on the chest and back. At intervals on succeeding days others appeared. On examination on the third day of illness there was a typical rash of varicella on the chest and back, showing the vesicles in various stages of development, while on the back of the right hand there was typical herpes over the distribution of the radial nerve to the thumb and first finger. The elder boy then showed the remains of the chicken-pox rash, and in addition several larger scabs along the line of the seventh dorsal nerve, which were the result of the herpes.

It is interesting to note that the herpes and varicella appeared almost at the same time in both cases.

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HEREDITARY HAEMORRHAGIC TELANGIECTASIA.

THE following case is reported as one of an unusual hereditary condition of the venules and capillaries of the skin and mucous membranes.

A man, aged 38, came under treatment for advanced pulmonary tuberculosis of some five or six years' duration; he gave a much longer history of recurring epistaxis. He had numerous telangiectases on the lips, which he stated had existed since he was about 15 years of age; they appeared one at a time, but all, he thought, within two years of each other.

Some years later similar spots appeared on the nose and cheeks, and about the same time he noted the same condition on his tongue. Fifteen years ago he began for the first time to be troubled by occasional attacks of epistaxis, which have become much more frequent within the last few years, and were of almost daily recurrence. The spots from time to time became more prominent and more palpably raised, and looked bluer; he thought that this was most frequently observed in the morning, and more especially if he had been drinking the night before. Ordinarily if he cut himself he did not bleed much, but if one of the telangiectases was cut the haemorrhage might continue for hours. Within the last two years he had noted two or three spots on his penis, on the dorsum of the glans.

In addition to the spots noted on the lips and face the patient had a number on the nasal septum, on the anterior two-thirds of the tongue, on the inner aspect of the gums, and on the soft palate. The spots were bright red and, except at certain times, were not palpable. They consisted of a cluster of dilated venules or capillaries, which lay immediately under the surface layer of the epithelium.

The family history is interesting. The patient's grandfather had the same condition, as had also his father and two of his uncles. One sister was also affected, and it had appeared in three cousins; one of the affected cousins died at the age of 28 from a "ruptured vessel in the brain." The patient had seven children—the oldest being 15—but none of them nor any of his sister's

children were, so far as he could tell, affected. In all the members of the family in which the condition has been present the onset of the disease was about the age of 15.

C. M. Williams¹ has collected thirty-two cases and added five of his own. The essential features of the cases mentioned by him are the same as in the case here reported—namely (1) the appearance of the telangiectatic spots at puberty; (2) the familial nature of the condition; (3) the marked tendency to haemorrhage; (4) the distribution of the spots especially about the nasal and buccal cavities.

I am indebted to Dr. Elder for allowing me to record this case.

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PULMONARY EMBOLISM FOLLOWING CHILDBIRTH.

THE cases reported by Dr. McCulloch and Dr. Young under this title (November 6th, 1926, p. 835) induce me to record two cases in my own experience.

The first was that of a primipara, aged 22, in whom labour had been quite normal; she was attended by the district nurse; I saw the placenta, which was intact. All went well until the fourteenth day, when, as she was getting up (her husband being in the room), she suddenly felt a severe pain in her side and slid down to the floor gasping for breath; her husband said "her face turned blue," and he put her into bed and rushed out to get help. On my arrival I found that he had not exaggerated her condition; she was cyanosed, breathing with difficulty, and evidently in great pain. I could find no sign of disease in lungs, pleura, or heart, and I knew that her history was free from serious disease. I remembered that I had read in the late Dr. Galabin's book an account of pulmonary embolism as a cause of pain, and frequently death, in parturition and child-bed, also a lecture by Professor Briggs on the same subject, so I put a mustard plaster on her side and gave a hypodermic injection of morphine hydrochloride 1/4 grain; she shortly became easier. She was ill for two or three days, and then gradually got better; a thrombosed left femoral vein was found on the day after her sharp attack, which produced a white leg and was treated in the usual manner. She was allowed up at the end of seven weeks and has since had no ill effects. She had no rise of temperature the whole time.

The second case occurred five years ago. The patient was a primipara, aged 19; labour was protracted owing to the size of the child, which weighed 9½ lb. I had to use forceps, and the perineum was lacerated; it was sutured and healed by first intention. She was very restless, and used to shuffle herself about her bed even when I was in the room. The temperature was not raised and all went well up to the eighth day, when I found her normal at my morning visit. In the afternoon I was hurriedly sent for, the messenger saying "that her mother thought that the patient was dying." On arrival I found a similar picture of distress—a "blue patient," gasping for breath and giving instructions to her mother to "take care of the bairn." I had a vivid remembrance of the former case, and gave her a hypodermic injection at once; as soon as she seemed easier I felt for the femorals, but could find no trace of clot, nor did I find any clot on successive days. However, to be on the right side I kept her in bed and gave her citrates. She made an uneventful recovery and has had two more children since. The second child, only 6 lb. in weight, was born without the nurse or myself being called. The third child weighed 8 lb.; delivery was somewhat slow, but otherwise normal. She passed through her lying-in periods without incident.

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EXCISION OF PROTRUDING PORTIONS OF THE LIVER.

A YOUNG native man, while celebrating a harvest festival with numerous potations, made an amateur attempt at hari-kari by stabbing himself in the abdomen with a long knife. From this wound, which was directed from above downwards, that portion of the liver which lies towards the left, and beneath the left lower margin of the sternum, protruded to the extent of six inches in length by four inches in breadth.

As the patient had come a long way (three days' journey on foot) it was impossible to think of replacing the gland within the abdominal cavity; three ligatures were passed round the pedicle of the protruding portion of the gland, clip forceps were also fixed at this point, and the entire mass was cut away close to the parietal rent. The abdominal wound healed by first intention, and the patient made an uneventful recovery. The operation was bloodless.

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¹ Arch. Derm. and Syph., July, 1926, p. 1.