

apparently from the failing of the *vis vitæ*. In the intervals, the breathing was tranquil, and he said that he had no pain. His pulse was now scarcely perceptible at the wrist, and his heart beat quick and weak. The draughts caused such an aggravation of the symptoms, and he appeared to be so near his end, that I desisted from repeating them; but I administered by inhalation, also without any good effect. Vomiting succeeded the paroxysm on several occasions. About 12 p.m., fits of contortion of the features came on, resembling intense maniacal laughter; and this was accompanied by profuse frothing at the mouth. About 1 a.m. on the 22nd, he died; not, as I had expected, during a paroxysm, but quietly, as if completely exhausted. His faculties were perfect from beginning to end, even during the fits of laughter, which were not the result of any aberration of intellect, but perfectly involuntary.

**POST MORTEM EXAMINATION.** The surface of the body was pale, except in the neck, where there was discoloration from venous congestion, no doubt caused by the obstruction to the return of blood to the heart by the spasmodic action of the muscles of the neck. The parotid glands were perfectly healthy, not the slightest appearance of congestion being found in them. The superficial veins of the neck and those of the scalp were all distended, and the blood was quite fluid. On removing the calvarium, the dura mater was found congested, all the veins being found distended with dark coloured liquid blood. On opening the dura mater, a large quantity of muddy serum flowed out, having the appearance of containing much fibrine. In many places, the layers of the arachnoid were adherent, especially along both sides of the longitudinal sinus. The adhesions were quite soft and recent, and many flakes of coagulated fibrine floated in the lymph-like fluid in the cavity of the arachnoid. There was also considerable effusion between the arachnoid and the pia mater, which in many places adhered firmly to each other, but there was nothing abnormal between the pia mater and the surface of the convolutions. The substance of the brain appeared perfectly healthy, with the exception of a reddish tawny spot in the substance of the pons Varolii, having somewhat of the appearance of inflammatory softening. The ventricles contained fluid similar to that contained in the arachnoid; and the various parts forming the floor of the cavity all appeared healthy. On the lower surface of the medulla oblongata, at the origin of the seventh, eighth, and ninth pairs of nerves, these membranes were highly vascular, thickened, softened, and matted together; but the substance of the nerves themselves, and of the medulla oblongata at their exit, seemed perfectly normal. I did not pursue the examination further, thinking that anything that might be found in other organs would only be of secondary consequence, except, perhaps, at the origin of the cervical and brachial plexuses, where similar lesions to those observed at the origin of the nerves at the medulla oblongata might be presumed to exist.

**REMARKS.** On looking over the symptoms, we find first a numbness of the limb stretching towards the sensorium, a tremulousness of the limb, no evidence of lymphatic absorption; and I think there is much reason to suppose that the poison introduced by the tooth of the dog is not at once absorbed into the circulation, but, like the syphilitic virus, lies for a time inert, all the while magnifying itself zymotically, until at length, after a variable interval, the period of recrudescence or maturation occurs, and the dreaded disease is produced. On this hypothesis, we might reasonably expect to obviate the disease in all cases by a thorough excision of the cicatrix at any time previous to the occurrence of recrudescence, more especially if we assume at the same time that the morbid influence is conveyed to the nervous centres through the medium of the nerves, as I think we have much reason for supposing; and not through the

medium of the lymphatics or the general circulation. Again, we find that all the muscles partaking of the spasms receive their nervous influence from the seventh, eighth, ninth, and phrenic nerves, or those at whose exit from the nervous centre inflammatory lesions were observed. The spasms seemed to commence with the palato-glossus and palato-pharyngeus muscles, gradually involve all the muscles of respiration and deglutition, and finally the facial muscles.

Now the question arises, Whence these phenomena? How are the spasms produced? This point resolves itself into three heads, as follows:—1. Are the muscular spasmodic phenomena produced by a reflex or excitatory process? the virus in the seat of the wound being the excitant, and the nerves of respiration and deglutition being the efferent nerves through which the motor influence is conveyed to the muscles, after passing by an afferent or sensory nerve to the spinal column. 2. Does the influence originate in the nervous centre, in obedience to the stimulus of a special poison, which at the same time causes a psychical change in the sensorium, whereby the mere mention of liquids, or, so to speak, the contact of liquids with the mind, is as effectual in producing the spasmodic phenomena as the contact of water with the mucous membrane of the mouth, or of a draught of air with the skin of the face? 3. In how far are the local lesions connected with the production of the phenomena? Do they occur as a consequence of the action of the poison, and prior to, and causatory of, the development of the convulsive symptoms? or are they to be considered as purely secondary, arising from the disturbed function of the parts, and determination of blood thereto by increased action?

These appear to me to be the points to which investigation ought to be directed; and, when these questions are satisfactorily answered, we may fairly hope to cure the disease, not by an empirical, but by a rational method.

Lucknow, July 25th, 1861.

## SCARLATINA IN THE PUERPERAL STATE.

By C. BLAKELY BROWN, M.D.

THE following cases of scarlatina occurred in Queen Charlotte's Hospital, under my care, last year; and, as the disease during the puerperal state is generally considered by the profession to be almost uniformly fatal, I send the short notes of them, thinking they may be of interest.

**CASE I.** Mrs. M. C., aged 28, was delivered on Jan. 31st, 1861, of her second child. A few hours after its birth, the rash of scarlatina was distinctly visible; the sore-throat and other symptoms were well marked. Desquamation followed; and in three weeks she left the hospital, perfectly recovered.

**CASE II.** Mrs. H. H., aged 25, was confined March 12th, with her first child. On the 15th, scarlatina appeared. The usual symptoms followed, and were rather severe in character; but she left quite well.

**CASE III.** Mrs. S. D., aged 28, was delivered March 13th, of her first child. For six days nothing was observed; but the rash of scarlatina then appeared. The disease ran its usual course, and after three weeks she was discharged cured.

**CASE IV.** Mrs. L. T., aged 35, was delivered March 22nd. After two days, the eruption of scarlatina appeared. The throat was much affected, and there was great depression; but she rallied, and left quite well.

**CASE V.** Mrs. A. P., aged 36, on March 26th was delivered of her sixth child. When admitted, she was in a weak state. On the 30th, the disease was developed, and the symptoms ran high. The throat was so much affected that for two days no nourishment could be taken by the mouth, and she was entirely supported by

enemas of beef-tea and wine. She remained for some days in a very precarious state, but left the hospital convalescent, and soon recovered completely.

CASE VI. Mrs. A. M., aged 30, was delivered March 28th. Six days afterwards, the eruption appeared. The symptoms, though well marked, were not urgent; and she soon recovered.

CASE VII. Mrs. E. B., aged 20, was delivered April 10th, of her first child. She complained of sore-throat the third day after delivery; desquamation followed; and she recovered completely.

CASE VIII. Mrs. J. L., aged 28, was confined May 5th, of her second child. Soon after admission, the rash of scarlatina appeared, and the disease took a very severe form. She was for some time in the greatest danger, but she left convalescent.

CASE IX. Mrs. J. E. P., aged 24, was delivered July 15th, of her first child. In a few hours the eruption appeared. The disease ran its usual course, and she also completely recovered.

REMARKS. The treatment in all these cases was similar in character, differing only as circumstances required. Bark and ammonia were given early; beef-tea, wine, and brandy were carefully and abundantly administered. In five of the cases, opium was given with most marked benefit. No external application proved of any real service; and in some so much irritation was caused, that more harm than good was the result.

The children of Cases I, II, IV, and V had the rash very slightly; but it was not observed in any of the others.

During the whole time in which these cases were being treated in the hospital, though there were the usual number of patients delivered at the same time, none had any symptoms which would lead me to suppose the fever affected them in any way.

## Progress of Medical Science.

AN EASY MODE OF APPLYING LEECHES. Mr. H. T. Higginson thinks the difficulty of getting leeches to stick may be obviated by the following plan, which he has found very serviceable. It consists in rolling a common sheet of note paper into the form of a cone, having a hole in the top just sufficient to let out the head of the leech. When the leech has stuck, the paper is simply let to untwist, when it will leave the leech hanging by itself, thus overcoming the often great difficulty in getting leeches out of the leech-glass. They can also be directed to any part. The leeches will take much better if kept out of water two or three hours before being used.

DEATH FROM POLYSARCIA. *The Buffalo Medical and Surgical Journal* reports a death from polysarcia, in the Utica City Hospital. The patient was a coloured man, a cook, aged forty-one years. His height was five and a half feet, and weight *three hundred and fifty pounds*. His circumference was four feet ten inches. For fourteen years he had been obliged to be clothed in female apparel. The autopsy showed two inches of fat on the sternum and three inches on the abdomen. His breasts were as large as those of any female. The lungs were sound but very small; the left lung weighed twelve and a half ounces. The heart was large, weighing twenty-four ounces, but perfectly sound. The liver weighed five pounds. The kidneys each weighed twelve ounces. The spleen was small. The penis and testicles were not larger than they are usually found in boys of seven or eight years of age; the scrotum was one and a half inches thick.

PUERPERAL CONVULSIONS. Dr. Nebinger gives the following summary of his views for puerperal convulsions:—1. The nature of puerperal convulsions is yet undecided. 2. The cause or causes are undetermined. 3. That uremia is the only cause, is not only doubted but denied, if not disproved. 4. The dependence of the convulsion upon the retained urea in the blood, being by some supposed ferment converted into carbonate of ammonia, is at best but a hypothesis, whose truthfulness is strongly disproved by the experiments of Dr. W. A. Hammond; experiments precisely similar to those performed by Ferriehs, upon which he reared his carbonate of ammonia doctrine. 5. *Post mortem* revelations are unsatisfactory, and at best present but little that is positive in regard to the pathology of puerperal convulsions. 6. In reference to the treatment, the almost universal testimony is in favour of reasonable depletion, general and local; that the use of chloroform and opiates as remedies are each both strongly recommended and almost as strongly denounced; and that the obstetrical treatment, the speedy and prompt emptying of the uterus, is the only portion of the management of puerperal eclampsia which is universally agreed upon as proper. (*Philadelphia Medical Reporter*.)

TREPHINING IN EPILEPSY—CURE. Dr. Read of Ohio reports the following case in the *American Medical Times*. John Tobin, aged 28, common labourer, possessing a model physical organisation, two years ago he received a blow on the side of the head, fracturing and depressing the anterior inferior angle of the parietal bone. He had suffered from spasms of an epileptic character, as described to Dr. Read, at intervals as short as a day or two, and rarely three weeks. Cramps of the upper extremities, and especially along the course of the ulnar nerve, were very distressing, as well as a general numbness throughout. He had great difficulty in articulating, and as the friends said, was gradually growing demented. In the midst of a sentence in his narrations he would stop and take up another point, as well as pursue his common avocations irregularly; and this condition of things gradually increased, until he could no longer be trusted in his daily pursuits. Trephining was advised, and on the 9th of September Dr. Read operated. The depression in the external table was of a diameter of an inch and a half. He applied a large-sized instrument, removing a portion of bone near an inch in diameter, having a spine of near a quarter of an inch in length projecting from the under surface, that had imbedded itself in the dura mater and substance of the brain, forming a pit in size and shape much resembling that produced by a grain of coffee. The venous hemorrhage was very profuse from between the tables, from some abnormal distributions resulting from the fracture. He was walking about in two weeks, and has had no spasms since the operation, save from the accumulation of blood and pus within the first few weeks, that gave rise to light ones. The difficulty in his speech was immediately relieved while the cramps and numbness slowly subsided, and his mental incoherence he has perfectly recovered from. Dr. Read saw him three months after the operation, and upon inquiry as to his well-being, "*First-rate*," was given in reply. In proof, he had assumed his accustomed duties. Dr. Read looks upon the operation as being attended with the most satisfactory results, more so than usually succeeds after the lapse of time that had occurred in the above case.

SUCCESSFUL REMOVAL OF THE THYROID GLAND. At the New York Pathological Society, Dr. Voss related the following case, in which he removed from a lady aged 54, a hypertrophied thyroid gland. Within the last seven years the tumour, having attained quite a large size, occasioned her a great deal of difficulty in swallow-