its treacherous properties, and must be employed with much caution and discrimination; but we think there is great scope, within perfectly safe limits, for its use.

REFERENCES.

¹ *Bull. de Thérap.*, 1907, pp. 648-50. ² *Dublin Med. Journ.*, February, 1909, p. 104. ³ *Journal of the Royal Army Medical Corps*, January, 1909, p. 70. ⁴ See Morax, *Annales d'oculistique*, vol. cxxix, 1908, p. 75, and Bulletin VIII of the London Sleeping Sickness Bureau. ⁵ Bagshawe, *Lancet*, 1909, vol. ii, p. 1196.

PEMPHIGUS NEONATORUM OCCURRING IN THE PRACTICE OF A MIDWIFE.

BY

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CROCKER¹ places pemphigus neonatorum among the group of skin diseases due to pus cocci, and separates it from the pemphigus group, with which it has in reality no connexion. It is not, he says, a syphilide, but a bullous infantile form of impetigo contagiosa.

The disease is not very common, but isolated cases and epidemics occur. Improved hygiene and the use of antiseptic and aseptic methods in midwifery practice have made it rarer than formerly. The characteristic of the disease is that during the first week or two of life an eruption appears on the skin of the infant. The eruption is first noticed as an isolated bulla about the size of a threepenny piece, containing clear or yellowish fluid. This bulla increases in size and ruptures, leaving a raw base. Meanwhile other bullae appear, the size and rapidity with which these develop depending on the severity of the case. Maguire² very fully describes the development of these bullae. The site most frequently affected is the lower part of the abdomen and the groins, but bullae may be present on any part of the body except the palms and the soles.

There are two forms—a benign and a malignant—but both may occur in one epidemic. In the malignant type general septicaemia sets in after the bullae have appeared, and the issue is fatal. The umbilicus is probably the avenue through which general infection takes place, the lower part of the abdomen in such cases being extensively involved.

Maguire gives the period elapsing between infection and development of the bullae as two to four days. In the benign type the average duration of the bullae is from two to three weeks. In the fatal cases death may occur any time within three weeks after the onset. In the rapidly fatal cases death may take place in four days. It is not always possible to trace the source of the disease, but it is without doubt contagious, and epidemics in maternity hospitals and in the practice of midwives are described. The bacteriology has not been definitely settled, but it is believed to be a streptococcal infection.

The treatment advocated is to avoid infection of the umbilicus and of fresh skin from the fluid in the bullae; to apply mild antiseptic washes, powders, and ointments, and in malignant cases to give stimulants and apply warmth. The attendant should not wash or handle another newborn child until after thorough disinfection of her hands, person, clothing and appliances.

A malignant outbreak took place in the practice of a midwife in Manchester in March and April, 1909. There were 4 cases, 3 of which were fatal. The midwife attended seven other lying-in women during this time, none of whose children developed the disease. In all the cases the mothers did well, and there was no history of sepsis. There was no infection of other members of the household. The original source could not be traced. So far as could be ascertained syphilis did not play any part in the disease and no information was obtainable that the midwife had any septic illness.

The inquiry was somewhat difficult to carry out, as the midwife did not lodge information concerning the cases until April 20th, when no other course was open to her, two of them having then been notified to the Medical Officer of Health by the medical attendant.

CASE I.

This case was found out through the death register. The child was born on March 18th, and was stated to be full time

and healthy. The illness began on March 22nd and the child died on April 7th. On the morning of March 22nd a bulla, the size of a shilling, was noticed on the left thigh; in the evening there was one at the umbilicus, which next day was as large as a five-shilling piece. This bulla dried up quickly. Fresh bullae appeared on the lower part of the abdomen, the groins, the buttocks, and axillae, and on April 4th small bullae appeared on the face and around the finger nails. The child did not appear to be ill apart from the skin condition until April 3rd; it then ceased to take food and had "convulsions." It died on April 7th, by which time all the skin lesions had healed except those in the axillae. The midwife is stated to have snipped with her scissors the original bullae, and to have washed the child up to March 27th. Medical aid was called in for the child on March 26th. The above history was given by the parents on April 23rd.

CASE II.

The child was born on March 29th, and was full time and healthy. The illness began apparently on April 1st, the first bullae appearing near the umbilicus. On April 3rd another came on the groin, and during the next few days more appeared. The midwife pricked the bullae and applied boracic powder. She dressed the child until April 6th. Medical aid was called in on April 7th.

On April 21st I saw the child; it was healthy and well nourished, but was somewhat fretful. The skin condition was as follows: The epidermis of the groins had disappeared, leaving the red, raw base of ruptured bullae. The left iliac region was in a similar condition, but was healing. The skin over the site of a bulla higher up on the abdomen was quite healed, but a red mark remained. A fresh bulla was present on the left thigh; it was about the size of a threepenny piece, and had risen within the previous twelve hours. It was filled with fluid which was clear except at the margin, where it was yellowish. In the centre of the base there was a pinhead of pus. On April 22nd I again saw the child. The base of the bulla was then healing. The history was given by the mother on April 21st.

CASE III.

The child was born on April 7th, and was full time and healthy. The illness began on or about April 13th and the child died on April 18th. The midwife looked after the child until its death.

Dr. Mitchell, who was called in on April 16th, stated that the affected area on that date was extensive. The lower part of the abdomen, the groins, buttocks, lower part of the face, chin, ears, and fingers were involved. The epidermis was hanging in tags, and the skin where there had been bullae was raw.

After death a swab was taken from a moist surface under one of the tags of epidermis and streptococci were found in the cover-glass preparation. The whole of the skin was evidently involved and would have peeled off readily. I was never able to see the mother of this child, though I called many times.

CASE IV.

This child was born on April 7th and was full time and healthy. It became ill on April 16th and died on April 21st. On the morning of April 16th the mother of the child washed it and noticed nothing abnormal. In the afternoon she saw little blisters, about the size of a sixpence, on the right thigh. On April 17th the little blisters had become a large hanging oval bulla, "like a scald," which ruptured the same day. On April 18th another bulla appeared on the abdomen, and also on the other thigh.

On April 21st I saw the child. It was collapsed and had a subnormal temperature, and the pulse could not be felt. The skin was extensively involved. The umbilicus was not protruding, but was raw and somewhat greenish; the lower part of the abdomen was one red raw surface, with tags of loose skin at the margin. The groins, buttocks, and posterior parts of the thighs were in the same condition. The epidermis on the front of the thigh was not shed. The chin and neck were involved and also the left cheek, and there were small bullae on the left ear and raw areas there and on the lips. The mouth was evidently affected also. The skin was peeling on the fingers of the right hand and on some of the toes.

Unfortunately it was not possible in these cases to prove anything concerning the bacteriology. It has been already stated that in Case III streptococci were found. In Case II on April 21st a swab was taken from the recent bulla, and in Case III on April 20th a swab was taken from the thigh, the place chosen being a moist part under a tag of epidermis. Both swabs were examined in the Public Health Laboratory. The organism found was *Staphylococcus pyogenes aureus*; it did not differ appreciably from the ordinary variety, and it was stated that no special significance could be attached to its presence.

The bacteriological technique required has been described by Sabouraud and is stated to be special.

The treatment of the cases calls for little comment. Case II, which would in all probability have recovered in any case, was treated with a mild antiseptic ointment. At least two of the other cases were hopelessly ill when medical aid was called in.

The preventive measures taken were exactly similar to those adopted in puerperal fever. They were effective. No further cases occurred. The midwife was at once suspended from work on April 20th. Thorough disinfection of the midwife's person, clothing, and appliances was carried out; the disinfection of her hands, appliances, and bag being personally supervised by me. She had a holiday in the country and resumed work on May 4th. The length of the suspension was in reality due to the fact that the midwife was unable to realize the serious nature of the disease, and to the probability that she had been the means of spreading it. She had failed to notify, as required, to the Local Supervising Authority, that she had advised medical aid to be called in to each of these cases, and thus had prevented early precautionary measures of disinfection being carried out.

It has been stated that pemphigus neonatorum occurs in the children of women who suffer from puerperal fever. In the last four and a half years I have only come across one such instance, although I have investigated all reported cases of puerperal fever in Manchester during that time.

I am indebted to the Midwives Supervising Committee and to the Medical Officer of Health for permission to publish the account of this outbreak, and to Dr. Mitchell for particulars of Cases II and III.

REFERENCES.

- ¹ Crocker, *Diseases of the Skin*. ² Macquire, *British Journal of Dermatology*, 1903.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

THE BLOOD-TIGHT UTERUS.

IN his interesting paper on the Blood-tight Uterus, published in the JOURNAL on November 20th, 1909, p. 1459, speaking of Nature's method of haemostasis after delivery, Dr. Longridge suggests that, besides the two lines of defence against haemorrhage which he mentions, Nature "may have another card up her sleeve as a reserve."

Some time ago I was called to a case of retained placenta. I had no difficulty in introducing my hand, or in removing the afterbirth, which I found still attached to a loose and flabby uterus. The womb, however, did not contract after withdrawal of the placenta, and I expected every moment an appalling rush of blood, but there was no haemorrhage to speak of. My hand, which I had immediately reintroduced to stimulate contractions and to see that the uterus was clear, moved freely in what felt like a flabby leather bag. It was some time before the uterus assumed even a partially contracted condition in response to my efforts.

What struck me very forcibly afterwards, when washing, was that I had unusual difficulty in cleaning my hands, having to peel off thin strings of blood-clot which adhered firmly to them. It occurred to me then that, as there was no muscular contraction to close the blood vessels, the absence of haemorrhage must have been due to this sticky condition of the blood. Probably clots had already formed in the uterus before the placenta was detached.

Was this haemostatic power accounted for by the increase of leucocytes and fibrin, known to exist during pregnancy; or is there at term some blood constituent (produced at the placental site perhaps) which favours coagulation?

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RUPTURE OF BOTH QUADRICEPS EXTENSOR CRURIS TENDONS.

I HAVE been much interested in the publication in the JOURNAL of November 6th, 1909, p. 1343, by Dr. Chichester, of Colchester, of notes of a case of rupture of both quadriceps extensors of the legs. A similar case came under my care in September, 1904.

A. M., aged about 57, slipped on entering a tramway car opposite my door and was helped into my house. He was placed on a sofa till I should return. He felt his left leg below the knee powerless in the movement of extension, and doubtless had, in his fall, ruptured the left quadriceps extensor cruris tendon. Feeling a little better, and being impatient in my absence, he endeavoured, with the

support of the consulting room table, to get on his feet and to walk. Suddenly he collapsed on the floor, with severe pain in the right leg above the knee. He was again placed on the sofa, and when I arrived a little later I found that both the quadriceps tendons were ruptured, leaving considerable gaps above the patellae. Unlike Dr. Chichester's patient, my patient declined suture, and both legs were put in plaster for three weeks in the extended position. Subsequently the plaster was removed and massage and gentle passive movement adopted. The result now is good, though there was a great feeling of feebleness for about a year. This, apart from Dr. Chichester's case, is the only instance I have seen or heard of of this double rupture, and it is very curious that the conditions in his case and in mine should be so identical. I have not seen a case of it in hospital, though I have been associated in the surgical work of a large one for nine years.

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GAS AND ETHER AS AN ANAESTHETIC.

No one will question Dr. Edward Phillips's belief (BRITISH MEDICAL JOURNAL, vol. ii, 1909, p. 1407) in the superiority of gas and ether over A.C.E. and chloroform.

I would, however, urge the decided advantages of ether administered by the open system over gas and ether. An almost daily experience during the last two years has convinced me that this is the best anaesthetic for routine work, particularly in dental cases where nitrous oxide alone is insufficient. From the point of view of:

1. *The Administrator*—open ether is easy to give and requires no expensive or cumbersome apparatus. I use Bellamy Gardner's wire frame with two layers of lint enclosing eight layers of gauze (thus obviating the superficial freezing apt to occur when gauze alone is used). Two ounces of ether is sufficient on an average to induce in ten minutes a condition of anaesthesia long enough for all dental operations.

2. *The Patient*—open ether is extremely pleasant to take (the testimony of doctors and nurses whom I have anaesthetized is definite on this point), and the after-effects are slight. It is very safe, the cleanliness of the apparatus affording a great contrast to the "to and fro" bag-breathing.

3. *The Operator*—the upright position, diminution of mucus, saliva, and haemorrhage, and rapid recovery, constitute open ether an ideal anaesthetic in dental surgery.

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SUPPURATIVE PYLEPHLEBITIS FOLLOWING OESOPHAGEAL STRICTURE.

A SAILOR, aged 73, had suffered for nine months from the usual symptoms of cancerous stricture of the oesophagus. Though for some weeks unable to swallow solids, he retained the power to get down fluids slowly and in small quantity to the end of his life. He took to his bed a fortnight before death, and lost power then rapidly, at the same time developing an increasing swelling of the liver, which was readily palpated to 6 in. below the right costal margin. There was also great trouble with rectal tenesmus two days before death.

Post-mortem Examination.—There was septic peritonitis, the peritoneal cavity containing over a quart of dark-yellow serum. There were large flakes of lymph at the anterior margin of the liver and about the pylorus and omentum, as also on the intestines in the pelvis. The omentum was contracted to a width of about 3 in., and matted to the under surface of the liver and about the pylorus. The stomach lay empty and drawn up under the left lobe of the liver. The liver was much enlarged, especially the right lobe, which reached to 6 in. below the costal margin. The enlargement was quite regular, and no nodules of secondary growth were discovered. The capsule was smooth, and the whole surface of the liver was studded with fine yellow points, which on section proved to be tiny multiple abscesses. In addition there were two larger abscesses, containing some ounces of pus,