the absorption of various putrid substances into the blood, by which the blood is spoiled, so that it cannot fulfil its physiological functions. Certain circumstances are necessary for putrid matter to be taken into the blood of man; such substances are only taken through the healthy skin and mucous membranes when the putrid substances have a destructive or cauterant action, or an active power of penetrating, like fungi or infusoria. Diseased skin or wound-surfaces take up such putrid matters more readily, but even they only do so under certain circumstances; for instance, they do not readily pass through well organised uninjured granulations; the poison is absorbed chiefly by the lymphatic vessels. What is the principal, or even subsidiary, part played in the pathogeny of septicæmia, is as yet undetermined.

Leaving much that might be discussed and illustrated here, we pass on to ask, What characterises the course of septicæmia? We note, as to the nerve-symptoms, the patients are apathetic and sleepy, if not entirely comatose; rarely there is fearful excitement, and occasionally maniacal delirium; at the same time, the subjective feelings are good; the patients usually do not suffer much. The tongue is dry, often as hard as wood, which renders the speech very peculiar; the patients are thirsty, rarely drink, on account of their great apathy. Not always, but very frequently, there is profuse diarrhœa; more rarely, vomiting. At first, there may be great sweating; later, the skin is dry and flabby. The urine is scanty, very concentrated, and occasionally albuminous. As the disease progresses, the patient passes her urine and fæces in bed. Bed-sores over the sacrum occur early. The temperature rises high; initial chills are very rare; intercurrent chills may or may not occur.

In the prognosis of septicæmia, the condition of the pulse and tongue are more important than the temperature. A small, frequent pulse and dry tongue are bad signs, while a normal temperature has no prognostic value; very high or very low temperature makes the prognosis worse. Cases occur where the onset of the fever is scarcely marked by an elevation of temperature; and, lastly, some cases run their course without fever, or with abnormally low temperature—for example, old persons with spontaneous gangrene. From what I have stated, and from what I shall show you presently in my case, falling of temperature is of itself by no means a sign of improvement; but the other constitutional symptoms (strength, mental state, pulse, tongue, etc.) must also be taken into consideration. Where the symptoms of the disease are marked, as they were in my case, the prognosis is very bad.

CASE.—Mrs. X., aged 28, tall and slender in form, of bright and hopeful disposition, had had three living children and three miscarriages.

During September, 1884, she considered herself weak from a four months' conception. From the middle of the month, she had a slight reddish discharge *per vaginam*, and sensation of cold and weight about the hypogastrium. I gave her five grains of gallic acid three times a day.

October 8th, at 9.30 P.M., I was summoned hurriedly to visit her. I found her in bed, on her back, with a *pot de chambre* between her thighs. In it was a somewhat putrid embryo, about the fourth month, with a shrivelled funis still connected. I divided the funis, removed the utensil, placed the patient on her left side, and examined for the placenta, which I found at the entrance of the os uteri. The cervix and body of the uterus, as far as felt, were peculiarly soft, as though made up of softened brown paper; I therefore determined not to handle the parts, but leave the placenta to be thrown off *vis a tergo*, rather than by a *vis a fronte*. The placenta was expelled about seventeen hours after the embryo; and, on my second visit, the patient was cheerful, and everything appeared externally well; but her legs were subjectively very cold. Twenty-four hours afterwards, at my visit, she complained of acute pain over the lower half of the right lung. The percussion-note was low, and there were mucous *râles*. Feeling very ill in the night, when on the commode, she became somewhat insensible, and fell off. The next morbid condition developed was a swollen right shoulder-joint, without any sign of a bruise. At this point of the case, I came to the conclusion that I had to deal with a case of septicæmia. Although no particular smell was observed from the vagina, I ordered injections of carbolic lotion (1 in 40). No tenderness was observed about the pelvis, however hard the pressure.

The temperature on the ninth day of attendance had risen to 102°; pulse 108; respirations 30.

On the next day, the whole of the fauces, with the entire mucous membrane of the mouth and tongue, were covered with diphtheritic membrane.

On the thirteenth day, the patient was greatly depressed, and profuse diarrhœa set in, with a temperature of 103°. The day after this, she had a severe attack of rigors, during which she seemed as though

she would die. These rigors continued twice in the twenty-four hours for some time, and then, at irregular intervals, for more than a month. The diarrhœa continued up to the end of the first week in November. The stools were of a most offensive character until November 4th, when a quantity of curry-like motion came away, and, two days afterwards, a green evacuation; from that time, the motions improved.

In a few days after the swelling of the right shoulder had subsided, the left became swollen, and eventually subsided under the application of iodine, as did the other.

On November 1st, twenty-fourth day of illness, the pulse and temperature suddenly fell; the conjunctivæ were yellow-tinged; the coccyx and sacrum quickly became the seat of bed-sore.

The next day, November 2nd, she had profuse vomiting, and was excessively prostrated. This day appeared to me a crisis; the same condition came on the two following Sundays, only not so severe. Both lungs, from apices to bases, were now involved with *râles*; she had an incessant cough, with expectoration of an albuminoid character. Improvement not having come as wished, I resolved upon using a grain of iodoform, mixed up with extract of gentian, to be taken every four hours. After twelve doses the effects were marked, the *râles* ceasing, the cough abating, and the expectoration lessening. She was well fed on tripe boiled in milk.

On November 20th, she had rigors again, anorexia for two days, with most acute pain in the left sacro-iliac joint, succeeding the subsidence of the swelling in the left shoulder. The slightest movement caused agony. No pain was produced by firm pressure over the inguinal region or up to the umbilicus on the same side. The bed-sore improved fast, and ultimately healed. I gave her full diet, and cod-liver oil with hypophosphites. She gained flesh well, and in January, 1885, began to go out; then menstruation occurred in regular order afterwards.

The above case was one of immense trouble and anxiety. The diagnosis turned out from the first correct. At the early stage of the condition, I surmised the possibility of a second putrid embryo, but such proved not to be the case. Then one was much importuned by the friends to stop the diarrhœa; but being a firm believer in nature's work of eliminating disease, I refused. What meant the rigors, so oft and irregularly repeated? What the apparently critical stages on three consecutive Sundays? The temperature ranged between 104.6° and 99°; for the greater part of the illness, 102°. The maximum of pulse was 120; and of respiration 36.

PARTIAL DISLOCATION OF THE HEAD OF THE RADIUS PECULIAR TO CHILDREN.

By SIDNEY H. LINDEMAN, M.R.C.S.,

House-Surgeon to the West Norfolk and Lynn Hospital.

No department of medicine or surgery meets with more lay criticism and quackish opposition, than that which has for its aim the setting of bones and the reduction of dislocations. The reason is, I think, easily seen. Medical education was once far different from what it is now. The medical student's career of Bob Sawyer's time consisted in walking round the wards of a hospital, occasionally attending the classes of a popular lecturer, and, finally, just scraping through an examination. It was then that the unqualified bone-setter arose and flourished. The bone-setters of the present day have changed in many ways, but there is no need to describe them or their *modus operandi*. Suffice it to say, that they have become more cautious, and have even, in some instances, been indiscreet enough to take a qualification, forgetting that, by so doing, they lose their standpoint. There is no doubt, however, that they should be things of the past, and they will gradually sink into oblivion. These remarks, which are perhaps rather irrelevant to the subject of this paper, have been made because similar injuries to the one about to be described frequently fall into the hands of the bone-setters, and help to form the rock on which their reputation stands. For, by rapidly and forcibly putting joints through all their movements, they often blindly do the very thing required. No medical man should be, or is generally, forgiven by the public for making errors in the diagnosis of dislocations and the treatment of fractures, which an unqualified man may afterwards rectify. Such errors are the cause of immense mischief, not only to the particular medical attendant, but to the whole of the profession. For it must be remembered that one happy hit, on the part of the bone-setter, is quite enough to outbalance a dozen mistakes which he may make, even though they may lead to incalculable mischief.

Very little has been written about this injury. The late Mr. McNab, of Epping, was the first to draw attention to it in this country (*vide* Heath's *Junior Surgery*); and in Ranking's *Abstract* for 1863, vol. i, there is a paper by Dr. Hodges on the subject. M. Goyrand has also paid it much attention. But great doubt has always been expressed as to whether this injury, in children under five years of age, is a dislocation of the radius at the elbow, or a displacement of the fibro-cartilage at the wrist, so difficult is it in children of this early age to get a complete diagnosis. Following a short article, sent to the JOURNAL in March, 1882, Dr. Sneddon wrote that he had met with several cases. The dislocation has, in every case that I have seen, occurred in children under the age of five, the most common period being between nine months and two years. It is a partial dislocation of the head of the radius, forwards on to the condyle of the humerus, perhaps in some cases reaching the shallow depression above the trochlear surface which goes by the name of the radial depression. It is generally caused by some one saving the child from falling by taking hold of the hand. In elder children, it is caused by nurses swinging them round by the hands, or it may result from a fall. In the first two cases, the tendon of the biceps largely participates in its production. This muscle acts both as a supinator and a flexor of the forearm; but it also flexes the arm on the forearm, when the latter is fixed, as in climbing; and, consequently, any great traction at the wrist causes it to be strongly brought into play, and so tends, by reason of its attachment to the posterior surface of the tuberosity of the radius, to bring the upper extremity of that bone forwards, out of its place. (In adult life, I doubt if this partial dislocation ever occurs, but several cases are reported of complete dislocation forwards. *Vide* Dr. Will, *Lancet*, June 7th, 1879.)

After meeting with the accident, the child is brought evidently in great pain. The injured limb hangs down midway between pronation and supination. The person who brings the child rarely knows where the injury lies; but generally thinks it is in the shoulder. Taking hold of the hand causes very great pain. The elbow is found to be hotter than its fellow, and there can always be felt an unnatural prominence on the outer side of the joint. Flexing the arm to a right angle and complete pronation can be accomplished; but, in attempting to flex more, or to supinate, some resistance is felt.

Reduction of the dislocation is accomplished by taking the hand of the child in the opposite one and strongly supinating, at the same time that the thumb of the other hand presses on the head of the radius. Before complete supination has taken place, a distinct "thud" will be heard, and the head of the radius felt to slip back. One of the peculiarities of these cases is, that the child, a few minutes after the reduction, will move the hand and arm, and will even grasp anything that may be offered to it, without apparently suffering any pain. These dislocations have a great tendency to recur, especially if not reduced early in the first instance. I have seen more than one case in which permanent enlargement of the elbow-joint has resulted, through the dislocation not having been diagnosed and properly treated in the first instance. After the reduction, it is necessary for the joint to be kept at rest by a rectangular splint, the small tin ones being the most suitable for the purpose. The injury most frequently occurs in children of the strumous type, with large ends to the bones. Previously to the last two years, no notes were taken of cases seen. Since doing so, twenty-four examples have come under my observation.

I think that a slipped tendon of the wrist, to which children are rather liable, may have been mistaken for a dislocation, and so led to the confusion, which has previously occurred, concerning injuries to the fore-arm in children of this age.

OBSTETRIC MEMORANDA.

STRYCHNINE IN POST PARTUM HÆMORRHAGE.

DR. WALKER calls attention to the influence exerted by strychnine over *post partum* hæmorrhage, and I can corroborate his observation. My father first informed me of its use, and I have been in the habit of giving this remedy (during the last eighteen or twenty years) in all cases where flooding has been expected or has occurred in previous labours, with most satisfactory results. I have no notes of cases, but have in my memory several instances where there was a previous history of flooding after labour, but where, when strychnine had been given beforehand, no hæmorrhage came on. Strychnine has, no doubt, a marked influence in preventing *post partum* hæmorrhage. I usually give five-minim doses of the liquor strychnie in tincture of orange-peel three times daily for a month or six weeks before the expected time, and I cannot recall any case of flooding where it had been given in this way. JOSEPH THOMPSON, L.R.C.P.Lond., M.R.C.S.Eng.

UNUSUALLY SMALL CHILD AT ALMOST FULL TERM.

OUT of numerous cases on record of viable children weighing less than 2 lb. 8 oz. at birth, I need only refer Dr. Scott to one reported by Dr. Barker, of Dumfries, in the *Medical Times*, 1850. This child weighed 1 lb., and measured 11 inches, and was alive three and a half years after, when it weighed 29½ lbs. The remarkable circumstance in Dr. Scott's case is, that the child only weighed 2 lb. 8 oz. "at almost full time," this in my experience being the normal weight at twenty-eight weeks of utero-gestation. It would be interesting to know whether the membrane pupillares were present or absent; and, if a boy, whether the testes were in the scrotum. The best method of keeping such an infant warm, is Auvard's couveuse or nest (*see Obstetrical Transactions*, 1884). Hearson's or Christy's hydro-incubators would be less costly, and easily adopted for the purpose. If the expense be insuperable, the child should be wrapped in cotton-wool, and kept in a covered basket near a fire. PERCY BOULTON, M.D.

CLINICAL MEMORANDA.

QUINSY FOLLOWED BY RHEUMATISM.

THE following case, recently under my notice, may have some interest as bearing on the discussion in recent numbers of the BRITISH MEDICAL JOURNAL, as to the connection between quinsy and rheumatism.

I was called, on November 7th, to see Mrs. M., aged 60, married, and with family. I found her suffering from a severe attack of acute tonsillitis; her left side was chiefly affected, and she had pain in the left ear. This quickly yielded to treatment by tincture of aconite, fomentations, and brushing with astringent solution. The right tonsil then became implicated, and on the following morning the tongue was severely and acutely inflamed. The tongue was lanced, calomel was given, and the patient was nourished with enemata. The mouth was washed out frequently with eucalyptol in solution, and also lotion of chlorate of potash. In two days the tongue and throat were quite well, but a peculiar huskiness of voice remained. The right shoulder now became very painful, and was found red and swollen; a liniment of soap and opium, with liquor epispasticus, was applied with benefit, and nourishment was given every two hours. A slight acid sweating was present; the pulse varied from 115 to 126; the temperature never rose above 100°, except on one occasion, when the thermometer registered 101°. The arthritis gradually improved in the shoulder, but attacked the sterno-clavicular joint and the corresponding end of the clavicle. The action of the heart gradually became feebler, and the patient quietly sank on the evening of November 14th. For many years past she had been subject to slight pain in the right shoulder in the morning, disappearing during the day. Whether this acute attack was owing to the cause or causes which originated the quinsy, or whether the quinsy was the cause of the acute arthritis and glossitis, I am not prepared to say. The heart's sounds were normal; the lungs and kidneys were unaffected.

N. F. H. FITZMAURICE, L.R.C.P. and S. Edin.,
Dunning, Perthsh., N.B.

THERAPEUTIC MEMORANDA.

TREATMENT OF TINEA TONSURANS.

ON September 5th there was published, in the JOURNAL, the paper which I read at the Cardiff meeting, on the treatment of "Tinea Tonsurans." Since that time, I have received a great many letters relative to my mode of procedure; and, as there seems to be a great deal of misunderstanding on this point, I shall be much obliged, and it may, in anticipation, reply to those who might in future be correspondents, if I may be allowed the opportunity of explaining that, inasmuch as the No. 1 solution contains caustic potash, it must not be applied to the scalp for more than a few minutes at one time. I have been making further experiments, and I can now recommend, for most cases, a modification of the first solution; namely, mixing liquor potassæ, and spirits of wine (methylated does very well), in equal proportions, the quantity of the iodide of potassium being the same; namely, half a drachm to an ounce of the mixed solutions.

I find, there are very few scalps which will not bear this strength; but cases which have been under active treatment in other ways, should not be put on my plan until they have been allowed to rest, for a time, free from any active remedial measures. I apply this solution pretty freely, either by dabbing on with cotton-wool soaked in