CASE OF DELIVERY UNDER THE INFLUENCE OF ÆTHER.

By HENRY B. PICKES, Esq., Surgeon, Aylesbury.

Ann Ricketts, of Aylesbury, aged 38, was taken in labour, on Tuesday, August 24th. The midwife in attendance stated that the pains were sharp and frequent for six hours, when the membranes ruptured, and the pains immediately ceased, and only occasionally recurred, until about forty-eight hours afterwards, when the midwife requested my attendance. I found her in active labour, pains strong and frequent, the os uteri well dilated, soft and flaccid, with the head favourably situated. At the expiration of about two hours, on making another examination, I found the hand presenting through the os externum, the shoulder, down to the outlet of the pelvis, and the right side of the thorax compressed within its cavity. I then endeavoured to turn the child, but was unsuccessful, owing to the strong expulsive efforts of the patient. A full opiate was then given her, and I requested the assistance of my friends, the Messrs. Ceely.

In about half an hour those gentlemen arrived, and in consultation it was agreed that under the circumstances, the duration of the labour, the wearied state of the patient, with declining pains, it would be desirable to put her under the full influence of æther by inhalation, previous to making another attempt at turning.

The process and its object being fully explained to the patient, she readily assented, and adroitly performed her part, under the superintendence of Mr. R. Ceely. In seven minutes the full effect of æther was manifest, and the operation of turning was commenced by Mr. J. H. Ceely. On introducing the hand into the vagina, that and the os externum were found more flaccid and dilatable than before, and the hand and arm were readily returned. The head was ascertained to be above the brim of the pelvis, with the chin resting on the os pubis, the feet on the back of the child, and consequently out of reach. A finger being introduced into each ham, the legs and feet with some difficulty, were at length brought down in succession. During this stage of the process, the uterus firmly contracted on the hand of the operator. The child being manifestly dead, the extraction of the head being impeded by its position and the contraction of the uterus, the delivery was completed by the introduction of the forceps. In a few minutes the placenta was expelled without hæmorrhage, and the uterus found perfectly contracted. The time occupied in effecting the delivery was about seventeen minutes, and during the whole of this period, the patient was nearly motionless and perfectly unconscious. The inhalation of æther was wholly suspended about every three minutes, from the occurrence of stertor, which, however, was of short duration. In five minutes after the conclusion of the inhalation, the patient recovered herself, but for a time, she was incredulous of what had occurred, and when convinced, manifested equal surprise and delight, repeatedly affirming that she had been unconscious of all that had passed.

The assistance afforded in this case by the use of

æther-inhalation, was marked and decisive, by the perfect unconsciousness and passive condition of the patient to the otherwise painful and difficult process of turning, although the uterine contractions were energetic during the whole process. The patient speedily recovered without a single adverse symptom.

Aylesbury, September 5, 1847.

ON SIMPLE ACUTE INFLAMMATION OF THE MEMBRANES OF THE BRAIN IN INFANTS.

By Dr. RILLIET, of Geneva.

*(Translated for the Provincial Medical and Surgical Journal.)**(Continued from page 236.)*

V. TERMINATION: PROGNOSIS.

Acute meningitis in infants may have the following terminations:—1. In death. 2. In recovery. 3. In the transition to a chronic condition.

Of these the first is unfortunately by far the most frequent. Some authors consider that this form of the disease is less fatal than the tubercular form, but we know of no good authority for the assertion. If indeed the absence of the tuberculous element in this form of the disease and its occurrence in a previously healthy constitution might reasonably give us some hope of combating its progress with success, there is on the other hand to be taken into account, the violence of the inflammatory condition, and the rapidity with which cerebral disorganization is induced.

That there is, however, some ground for hope in the sporadic form of the disease, is fairly to be anticipated, since even when the disease is epidemic, some recoveries occasionally take place. In looking over the works on meningitis by Golis, Charpentier, and others, we do sometimes meet with instances in which real meningitis has been cured, although we regard the generality of the cases reported as cured, to have been instances of erroneous diagnosis. [In this remark we perfectly agree with the author, it has happened to us not seldom to have met with vaunted cases of hydrocephalus cured, which have in reality been nothing more than infantile remittent, with cerebral complication. *Trans.*]

It is no easy matter, if not quite impossible, to give anything like a scientific prognosis in this disease. Facts are wanting, and the disease must be re-observed. Independently of the termination in death, and in recovery, some authors consider that the inflammation may pass into a chronic state. We acknowledge that this may possibly be the case, but we do not know of a well-authenticated instance. In our experience, whenever there has existed a chronic or sub-acute inflammation of the membranes of the brain, it has been so from the commencement, and has been in the instance of a tuberculous subject,—a case in fact, of tubercular meningitis, and not of simple inflammation. In those cases in which the appearance of false membranes has led some authors to believe in the existence of chronic simple meningitis, we, as we have elsewhere stated, (*Traité des Maladies des Enfants,*) consider

the lesions to be the result of a former meningeal hæmorrhage.

VI. CAUSES.

The causes of meningitis are not otherwise than obscure, as might indeed be expected, when we consider the comparative rarity of the affection, and the imperfection in the history of infantile cerebral affections in general. Most authors agree in the great preponderance of the tubercular form of the disease over that which we have denominated the simple acute form, but they differ respecting the age at which this latter most commonly makes its attacks. Guersent, for example, states that in early infancy it is more common than the tubercular form. Bouchut affirms the direct contrary. In analysing a certain number of cases during the composition of this essay, we have ascertained, that simple acute meningitis may attack children of all ages; but that it is especially frequent in the first and ninth years. This is shown in the subjoined table:—

	Cases.	Primary.	Secondary.
1st year	5	5	0
2nd to 5th	4	2	2
6th to 10th	13	11	2
10th to 15th	3	1	2
	25	19	6

It would appear from this table, that dentition has an intimate etiological connection with the disease, as it is most frequent at the periods of eruption of the first and second dental series.

Robust children are those most commonly the subjects of this disease, at least as far as our observation goes; and boys appear to be more prone to it than girls. According, however, to the experience of others, the influence of sex is not perceptible.

Meningitis may occur in all seasons, but a larger series of observations is necessary in order to determine whether it is more frequent at certain times of the year than at others. The distribution of the cases which form the basis of this memoir was as follows:—

January	1	July	0
February	2	August	2
March	1	September ..	2
April	1	October	4
May	4	November ..	1
June	2	December ..	3

It does not appear therefore that the disease is especially prevalent in hot weather, though it is incontestably occasionally produced by insolation. M. Guersent alludes particularly to this cause:—"The prolonged exposure to the sun's rays is," he observes, "one of the most common causes of acute meningitis, especially in very young children. I have many times had proof of this, and particularly in one instance, in which an infant which had been left exposed to the mid-day sun in the garden, died of most extensive meningitis of the surface of the brain and cerebellum."—(*Dict. de Med.*) Dr. Whitehead also attaches great importance to the influence of insolation. According to him it is the most potent of all the causes of the disease.—*Medical Gazette*, Jan., 1844.

Among the occasional causes of acute meningitis,

is the repercussion of eruption of the scalp; among the cases which we have met with, the majority were either the subjects of, or had recently been cured of eczema, favus, or impetigo.

Direct causes, such as blows, &c., may induce meningitis in infants, as in persons of greater age. Parent gives the case of a child of ten years of age who died of meningitis, the consequence of fracture of the orbital plate of the frontal bone; such instances are however rare.

VII.—TREATMENT.

What we have said respecting the causes of acute meningitis applies still more forcibly to its treatment. We are not able, in the present state of science, to point out the most successful means of arresting the progress of the disease. The treatment is *prophylactic* and *curative*.

1. *Prophylactic Treatment*.—The hygienic rules which we have elsewhere insisted upon, in reference to tubercular meningitis, are only partially applicable to the disease in question. Instead of the tonic medicines, so applicable in the tuberculous constitution, it is necessary, in the probable subjects of this disease, to advise a cooling and slightly antiphlogistic regimen. The bowels should be kept free, and care should be taken to maintain an equable temperature in the extremities; the hair should also be kept short and thin, so that the head may be cool; and lastly, tepid baths should be frequently administered.

As we have no intention to write an article on hygiene, we shall content ourselves with these general rules; but while upon the subject, we think it right to allude to the precautions which are necessary in treating the chronic-scalp eruptions of children.

When the cutaneous inflammation occupies but a limited surface, it may in general be cured without risk; but on the contrary, when the diseased surface is extensive, the rapid denudation of the inflamed skin, by a removal of the scabs, may be followed by the worst consequences. Whatever be the explanation of this, the fact remains certain. Common sense then indicates, that in order to avoid danger these scalp-eruptions must be treated with caution, and as the injurious effects seem to be proportionate to the extent of the denuded surface, it is advisable to treat but a small portion at a time, and to encourage free action of the bowels as a derivative.

2. *Curative Treatment*.—Acute meningitis, as the most formidable inflammatory affection to which infancy is subject, requires an energetic treatment. The indications to be fulfilled are both general and special. Among the former we may mention—1st, active antiphlogistic treatment; 2nd, to favour the absorption of effused products; 3rd, to replace the antiphlogistic treatment by one vigorously derivative, during the period of collapse; 4th, to guard against all nervous excitement.

The special indications have reference to the exciting cause of the disease, and thus the treatment must vary accordingly as it succeeds to the rapid declension of a cutaneous affection, or assumes the convulsive or phrenitic form, or appears sporadically or epidemically:—

1. *Blood-letting.*—Authors are not agreed as to the propriety of abstracting blood in tubercular meningitis, but in the acute form there can be no question of its advantages. In young infants, leeches are to be preferred to general bleeding; but in children of the age of four years, bleeding at the arm is the best. When leeches are determined upon, they are to be applied in numbers proportionate to the age of the child, either to the head or to the extremities, as the circumstances of the case may appear to require.

2. *Cold Applications, Blisters, &c.*—Heim is one of the first physicians who employed cold affusion in meningitis, and appears to have placed such confidence in this measure as to be indifferent to the employment of others. The plan was to pour cold water upon the head for ten minutes in every hour.

[The author here enters into a long account of the different modes of applying cold, but as they are in common use, we need not occupy our pages with their description. The author himself gives the preference to a mode of irrigation, which consists in conducting water guttatim by means of a skein of thread, which is made to hang from a vessel of water over the head.]

Cold applications are only useful in the early stages of the disease; all authors without exception condemn them as hurtful when coma supervenes. Some writers then recommend the substitution of warm applications, and Romberg more especially approves of them; Guersent also speaks favourably of their use when there is little heat of head. We have no personal experience of this matter, but should question their advantage. A measure in which we have more confidence is the application of warm stimulating fomentations to the extremities.

The employment of blisters must next occupy our attention; writers differ somewhat as to the period most suitable for their use. Charpentier advises them from the beginning, and applies blisters to the legs within some hours of the commencement of the treatment; if no amelioration follows these, he then applies others to the thighs or abdomen, and again later, to the nape of the neck.

There is one case in which we must not omit to induce vigorous counter-irritation of the scalp, namely, in those instances in which the disease has supervened upon the retrocession of a cutaneous eruption. In these cases, blisters to the scalp, or frictions with croton oil, are strongly indicated; we give the preference to the latter, and could relate cases in which it has been followed by the best effects.

Purgatives.—We have no great faith in this class of medicines, but, on the contrary, have seen reason to believe, that by exciting intestinal irritation, they diminish the chances of recovery, without in any measure removing the original disease; nevertheless it must be stated, that Abercrombie, Deloyen, and others, regard purgatives as a valuable addition to the treatment of meningeal inflammation.

Alteratives.—The rapid progress of acute meningitis, the early formation of morbid effusions, the predominance of fibrine in the blood, all indicate the employment of those medicines which promptly and effectually modify the crasis of the blood, and at the

same time encourage the absorption of the effused products.

Mercury, in whatever form it is employed, should not be exhibited until after blood-letting, local or general. Some difference of opinion exists as to the dose which is most suitable. Golis prefers small doses, as the fraction of a grain; others, and more particularly the British practitioners, give it more liberally. Mercurial frictions are to be preferred to the internal administration of the mineral, as less likely to excite formidable intestinal symptoms.

Of late years the preparations of iodine have been well spoken of, especially in the period of collapse; we have had small experience of their effects in acute meningitis, but have found them quite imperative in the tubercular form of the disease.

Having thus gone through the principal remedies, we shall, in conclusion, lay down the following *resumé* of our practice, in the different forms of the affection:—

1. In the case of a robust infant, seized suddenly, or after a restless night, with violent and repeated convulsions, the child being comatose during the intervals, with squinting, contracted pupils, quick pulse, and respiration, if no cause can be assigned for the attack, we adopt the following line of treatment:—

One or more applications of four leeches to the knee; large cataplasms to the extremities, frequently renewed; cold applications to the head.

If the convulsions persist after the lapse of twenty-four hours, and the coma is not less during the intervals, leeches must be again applied, and irrigation be substituted for the cold lotions. Calomel is to be given internally, and mercurial ointment rubbed into the axillæ and thighs. If the child becomes pale, the pulse full, and the convulsions are less frequent, the continued application of cold must be suspended. If confirmed coma supervene, blisters may be applied instead of the cataplasms, these being kept on only sufficiently long to redden the skin, and then moved to another spot. The calomel may now be replaced by the iodide of potassium.

[In the management of the above case, there appears to us one great omission,—viz., the non-performance of lancing the gums, with the exhibition of enemata. As it is next to impossible in the first instance to diagnose centric from eccentric convulsions, the latter treatment should, in our opinion, always premise the more severe measures above indicated.—*Trans.*]

2. In a young child, of one or two years of age, of strong constitution, who is seized with fever, with continual somnolence, and accelerated pulse and breathing, without pulmonary lesion; with a fixed stare, frequent acute cries, repeated vomiting, and constipation; if it has not been exposed to the contagion of fever, and dentition proceeds normally, the practitioner should suspect the onset of acute meningitis, and prescribe leeches and cataplasms, and then wait awhile. If the symptoms persist, he must follow out the treatment above mentioned.

3. Suppose a child aged seven or nine years, of good constitution, after exposure to the sun, is taken with fever and headache, vomiting repeatedly, and is agitated

and complains of the light; if there is no history of typhoid fever, phrenitis should be suspected and blood be taken from the arm. If the symptoms diminish, but again increase in intensity, it is probable that the disease has an intermittent character, and quinine may be exhibited by the mouth and in an enema. But if to these symptoms, delirium or coma be added, and the disease has not passed the second or third day, active treatment must still be persevered in. The bleeding is to be repeated, or leeches to be applied to the mastoid processes, cold applications are to be continually applied, and if there be no vomiting, and the bowels are obstinate, croton oil may be given. If, however, the vomiting be urgent, we should endeavour to allay it by a quarter of a grain of bismuth, given every half hour. In addition to this, mercurial ointment must be energetically rubbed in. This treatment is to be carried out during the second and third day. If, however, the pulse becomes feeble and irregular, the face livid, and the pupil dilates, the hydriodate of potash should be given and blisters applied.

4. In the secondary and more insidious form of the disease, it is prudent not to abstract blood. A sedative treatment offers the greatest chances of success.

(To be continued.)

SEVERE CASE OF SPASM, ARISING PROBABLY FROM BREATHING AND SWALLOWING THE DRIED PARTICLES OF THE PEA-BLIGHT.

By EDWARD DANIELL, Esq., Newport Pagnell.

(Communicated to the Provincial Medical and Surgical Association, at the Anniversary Meeting, at Derby, Thursday, August 5th, 1847.)

Thomas Coley, of Stoke Goldington, Bucks, a farm-labourer, returned from his work apparently in good health, about seven o'clock last night, August 2nd. He had been employed during the latter part of the day in a barn, unloading peas, which had been early cut in consequence of the blight; in fact, the peas were nearly destroyed by swarms of the black *aphis*, by which the peas and beans are greatly affected in this neighbourhood. The dust produced by unloading and stacking in the barn was very considerable; in short, the atmosphere he inhaled, and the saliva he swallowed, must have been impregnated to a vast extent with decayed particles and excrementitious matter from the dead bodies of these insects. He had his usual quantity of beer, which amounted in the course of the day to one quart and half-a-pint. Of what his food consisted I was not informed.

About eight o'clock he was seized with severe pain in his bowels, which gradually increased in severity until the whole abdominal muscles swelled and enlarged, becoming tense and hard, like pressing upon a board. The spasmodic action then extended to the chest, which became equally rigid, accompanied with difficulty of breathing. In less than an hour from his first seizure the paroxysms of pain became so severe that it required four strong men to hold him, he rolling upon the floor in the most intense agony, and breathing with much

difficulty, accompanied by a noise, as though it required vast muscular effort to fill the lungs at all. His feet and hands were cold, and his body covered with clammy perspiration.

When I saw him, which was not until two hours and a half after the seizure, he was sitting on a chair, with his body bent forward, forcibly pressing himself against a table, occasionally writhing and groaning incessantly, still breathing with great difficulty. I believe he both heard and understood my questions, but was unable to answer them, or even to articulate in the least. The pupils of the eyes were perfectly dilated, and the pulse exceedingly feeble. The extreme hardness of the abdomen had been relieved when I arrived, probably from the unloading of the *primæ viæ*, for it appeared a few minutes before he had passed a copious loose stool, so extremely offensive that it was removed immediately, and I had no opportunity of seeing it.

The case assumed so anomalous a character, that I became impressed with a belief that it arose entirely from the poisonous property of the particles of the dried *aphis* or pea-blight, with which the atmosphere he had breathed had been so fully charged; and considering it likely, as the harvest advances, there may be other cases present themselves equally anomalous, it occurred to me that it might not be unworthy the attention of the members of the Provincial Medical and Surgical Association, now assembled at Derby.

I administered ten grains of calomel and two grains of opium in a pill. I then left the patient for half an hour, after having first directed his feet to be bathed in warm water, and the abdomen to be fomented with flannels, dipped, and wrung out, in water as hot as he could bear it. On my return he was relieved; consciousness and articulation returned. Prescribed an active aperient, composed of sulphate of magnesia and jalap.

Aug. 3rd. This morning a messenger was dispatched to me to say he continues better, but has had no action of his bowels. Ordered pills of calomel and croton oil.

The pills of calomel and croton oil produced very copious action upon the bowels, and entirely removed the painful symptoms under which the patient laboured. He was able to return to his work in three days after the seizure.

A few days after this case, I made enquires of the farmer whether any of his other men were at all affected who had been employed in carrying or housing the peas. I found that another man was so unwell the next day that he was unable to resume his work, but the case passed over without medical treatment. The farmer himself was slightly affected; he complained the same evening of severe pain in the stomach and bowels, and (as is usual with such men,) had recourse to stimulants to relieve it. He took, before going to bed, two tumblers of hot brandy-and-water, and found himself well in the morning.

It would appear from these cases that the dried particles of the pea-blight, when mingled with the saliva and swallowed, or breathed into the lungs, particularly in a close place like a barn, where the currents of fresh air are but slight, produce effects upon the