specific practical object, and, consequently, are more valuable to my present purpose than if they had occurred to myself, and had been brought forward to serve my own particular views. You may refer to many of them yourselves, and you will find in nearly all of them that the hæmorrhage was suppressed after the placenta was thrown off."—*Provincial Medical and Surgical Journal*. 1844. p. 603.

Since then Dr. Simpson published (in the *London and Edinburgh Monthly Journal of Medical Science*, No. 51, March, 1845,) tables of 141 cases, some of which, however, were not cases of spontaneous expulsion. These tables include those cases which had already been brought forward by me, and some others which were afterwards communicated by me.

By the kindness of several professional gentlemen I have collected sixty, which shew the following results:—In all, the hæmorrhage was great before the placenta was loosened; in fifty-five of this number it was completely suppressed after the separation of the placenta; in three it continued, of which in two it was slight, in one it was profuse; in thirteen the placenta was forcibly expelled followed immediately by the child; in twenty, two to three hours elapsed; in twenty-seven the child was turned and extracted immediately. Forty-five women recovered, fifteen died. Fifty-five children were lost, five only living.

In the above mentioned cases there is only one in which flooding to any degree continued after the placenta was completely separated, and this proved fatal. In the remaining number of those who died, the fatal impression was made before the separation was accomplished. In a few cases already published slight hæmorrhage continued, and some deaths occurred not dependent on the after bleeding, but as above mentioned from the effects produced before. These cases must not be allowed to invalidate the inference, "that hæmorrhage ceases when the placenta is completely separated." We can readily understand why this should happen if we physiologically investigate how the utero-placental, and the placento-fœtal circulations are carried on.

When a partial separation of the placenta takes place whilst the fœtus in utero is still living, hæmorrhage is sure to occur, because two sources exist from which blood can escape. (*Vide Lancet*, No. 9, February 27, 1847.) One current of blood comes through the medium of that portion of the placenta which still adheres to the uterus, and is discharged from the surface of that portion of the placenta which is detached; the supply of blood is demanded by the child from the maternal system, and when sent, it cannot from the nature of the accident return, and therefore, is lost: the other current of blood which runs away, comes from the uterine venous openings. But when there is complete disjunction of the placenta from the uterus, the case stands quite different; no maternal blood can

be discharged from the placenta, because it is now placed in the position of a foreign body, having no structural or physiological relation to the womb. Rupture of the membranes either simultaneously happens, or precedes the separation and expulsion of the placenta, except in cases where the entire ovum is expelled at once, which very rarely occurs. The uterine contraction, which must at this time have been strong, is now increased, which brings the presenting part of the child to occupy the lower segment of the uterus, and to bear mechanically on the exposed venous openings. The calibres of the vessels are also diminished.

Notwithstanding the truth of the above conclusion,—that complete detachment of the placenta suppresses hæmorrhage, yet we must not allow ourselves to fall into serious error to wait in expectation of such an event,—because, first, there do not exist signs which will lead us to expect such a termination; secondly, the vital powers may be completely sunk before the separation is achieved. Hamilton, Collins, and Dr. Ramsbotham, senior, were all acquainted with this fact.

March 10, 1847.

OBSERVATIONS ON THE TREATMENT OF ORCHITIS BY COMPRESSION.

By GEORGE FREDERICK WILLS, Esq., Surgeon,
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The beneficial effect of pressure in cases of inflammation of the testicle has been for sometime generally known, but from some cause the practice is not so extensively followed as we should be led to expect from the excellent consequences which have resulted from its employment. The fear of producing such an aggravation of the sufferings of the patient, as would counterbalance any good effect which this mode of treatment may exercise on the disease, has been made an excuse for not employing it; and some have argued that where a little pressure increases the pain and thus augments the sufferings of the patient, the employment of constant and firm pressure must necessarily do a proportionate degree of harm. But experience tells us this is not the case, and although the remedy seems severe, it in reality is not so, for it greatly alleviates pain, while at the same time it subdues the disease. I believe that if this mode of treatment were more generally followed, we should find that the number of cases with chronic enlargement of the testis would be far less than at present.

It may be asked, what are the advantages which this mode of treatment possesses over others? It will therefore be as well to refer to the methods in general use and point out some of the inconveniences, if not disadvantages which arise from their employment.

Bleeding is seldom useful except when there is much inflammatory fever. *Leeches* have been the favourite

remedy with many, but there is no practitioner who has had recourse to them who does not know, even in cases where they have been most beneficial, how inconvenient their application always must be. In cases of orchitis the great wish of the patient is to keep secret the cause of his illness, and this can scarcely be done where leeches are used. If a few are applied they seldom do much good, and the expense of many often proves an objection to their use.

Purgatives of course are useful in this disease, but they are not of themselves sufficient to effect a cure.

The same may also be said of *narcotics*, and especially of *opium*.

Mercury is frequently administered in large quantities, and we find pyalism often occurs before any impression is made on the disease. Excepting in very severe cases this remedy is almost as bad as the disease, and it may do harm when gonorrhœa is present, as of course it often is in cases of orchitis.

Emetic tartar is the remedy most commonly employed, and in many cases it subdues the inflammation. Unpleasant as this medicine is when taken in the nauseating doses requisite, it doubtless does a great deal of good in many cases.

The local application of *cold lotions* or *warm fomentations*, will be found beneficial, more especially the latter, with or without the addition of laudanum or aconite. A warm bran poultice with hydrochlorate of ammonia in it is also useful.

With all these, however, one thing is needful,—entire rest, either in bed or on a couch, and it often proves very inconvenient to the patient to be obliged to submit to this necessary restriction.

Suppose then, that the patient after some days treatment with either of the above remedies, is better, and the inflammation has subsided,—is he well? Certainly not. The testis remains enlarged, hard, painful from its weight, and liable on the slightest injury to take on inflammation, and render the patient incapable of attending to his employment for some days more. If it goes on ever so favourably, a long period must elapse before all the enlargement which remains will yield, either to the employment of mercury or iodine, however diligently applied.

I have thought it best to notice the merits and demerits of the remedies usually employed before speaking of the advantages which result from the use of compression. Some time ago Fricke, of Hamburg, proposed compression of the testicle when the acute stage of orchitis had subsided; and in sub-acute cases of the disease, Ricord, in France, used it also to a great extent, and I believe still continues it. The practice has now found its advocates in many of our hospitals, although it has not come into general use. Mr. Curling, Mr. Acton, and Mr. Langston Parker, have also used it with success; and at the Seaman's Hospital Mr. Busk almost uniformly follows the

practice, and with great success. The following cases will show how effectually it acts in arresting the inflammatory process in the different stages of the disease:—

CASE I.

December 16th. J. T. contracted gonorrhœa about a month since; he has never had orchitis before. He yesterday found the testis becoming painful, and it soon swelled to a large size. It has within the last twenty-four hours become of the size of a hen's egg, is extremely painful and tender, and the scrotum is red and inflamed. There is also pain along the cord, general febrile disturbance, and the gonorrhœa continues. Strips of adhesive plaster were firmly applied round the affected testis, and for the first five minutes caused an increase of pain. He soon, however, became easier, and remained so.

18th. The straps having become very loose from the diminished size of the testis, they were removed, and fresh ones firmly applied.

20th. The straps came off; the testis has almost returned to its natural size, and there is but little induration remaining.

CASE II.

July 4th. R. T., aged 22, has had gonorrhœa eleven days. Six days ago the discharge lessened, and four days ago the right testis became inflamed. Has had gonorrhœa, but not orchitis, before. The testis was strapped with soap plaster, and cubebis given internally.

6th. The testis smaller and less painful. Restrapped.

11th. The testis has regained almost its usual size, and there is but little hardness remaining.

CASE III.

June 26th. H. W., aged 20. Gonorrhœa two months. Four days ago the right testis began to swell, and is now the size of a hen's egg; not very tender except when pressed. Never had orchitis before. Strapped with soap plaster, and to have one drachm of cubebis three times a day.

30th. Gonorrhœa cured; testis much smaller, and hardness less.

July 4th. Cured.

CASE IV.

July 15th. E. M., aged 19. Gonorrhœa fourteen days. Orchitis of both sides. Twelve days ago the right testis became swelled, and has gradually increased in size, and is now as large as a goose egg, tender and painful; there is also tenderness and swelling of the cord. The testicle has been large since an attack of orchitis six months ago. Straps of adhesive plaster were applied.

16th. Much smaller and less painful. Restrapped.

24th. Almost well. The left is now swelled and painful.

25th. The left being larger, was strapped.

26th. Left testis better.

31st. Both well except slight induration of the right.

CASE V.

March 28th. J. M., aged 18, fell across an iron bar and injured the left testis, which has been swelled for a week. It is now about the size of a large hen's

egg, not very hard, and of a more oval form than in gonorrhoeal orchitis. Strapped with adhesive plaster.

29th. Much better; straps very loose; re-applied.

31st. The testis is become quite soft, and of its natural size.

I would here observe, that this kind of orchitis (from injury,) gets well more speedily than when connected with gonorrhoeal inflammation.

CASE VI.

J. D., aged 25, has had more or less gonorrhoea for two years, but no orchitis. Fourteen days ago the right testis became painful and swelled. Straps of adhesive plaster were tightly applied. In three days it was re-strapped, the scrotum, which was previously tense and inflamed, being now flaccid and free from tenderness. The testis after one more application returned to its usual size.

CASE VII.

June 16th. S. C., aged 30. Gonorrhoea one week. Never had orchitis before. Last evening the testis became tender and swelled, after using violent exercise. The urethral discharge is diminished; there is much pain along the cord, which is swelled. Straps of adhesive plaster were applied, and one drachm of cubebs given every six hours.

18th. Better; testis much smaller. Re-strapped; and after this, being quite easy, he walked a good deal. Pain then came on, and the strapping was immediately removed. Hot fomentations were constantly applied, as the pain became very violent. A little tincture of opium gave speedy relief.

19th. The testis less painful. To be supported by a suspensory.

28th. The testis almost well, but some degree of enlargement and hardness remains.

This case shows that if the compression gives pain and is immediately removed, the case goes on well.

The next case is one where I was not called in to see the patient for some time after he was seized with the severe symptoms which supervened; but I do not doubt that if I had seen him at once, and had immediately removed the strapping, the patient would have done as well as Case 7.

CASE VIII.

June 10th. J. F., aged 24. Gonorrhoea fourteen days. Orchitis six days. Testis the size of a duck's egg, very hard and painful; the cord very tender and swelled. Strapped with adhesive plaster.

12th. Better. Re-strapped.

15th. Better. Re-strapped. Walked a great deal. Some hours after the strapping had been applied, great pain came on, with considerable swelling of the cord, tenderness over the lower part of the abdomen, and pain in the loins. Vomiting, a quick feeble pulse, and cold extremities, were the severe symptoms which followed. Stimuli were given, æther and opium; the strapping removed, and hot fomentations constantly applied. He soon became easier, and progressed favourably.

27th. The testis very hard, but free from pain; in other respects well. (This state of the testis has become permanent.)

The above is the most severe case of the kind which will generally be met with; and I have adduced it to show what is the dark side of this mode of treatment. I do not, however, consider the symptoms to have been more severe than in some cases of orchitis where other treatment than strapping has been used; and often a blow on the testicle will cause the same symptoms.

At the time Case 1 applied to me, a neighbour of his came with the same disease; and, thinking it would be a good opportunity to test the different modes of treatment, I ordered him tartar emetic and calomel, with warm fomentations to the part. He got better in about ten days, but was obliged to use the Linimentum Hydrargyri cum Camphora, for some time before the induration and enlargement of the testis gave way.

A brother practitioner called me to see a case of orchitis, arising from a blow. The testis was very soft but of large size. Here leeches, calomel, and tartar emetic, were put in requisition, and after a week the patient was allowed to get up; and in a few weeks after the testis slowly diminished to nearly its natural size. In this case the probability is, that if strapping had been applied, the cure would have taken not more than a week, as in Case 5; but my friend thought the old mode of treatment better than the new. Since then he, as well as others, has been persuaded of the efficacy of compression in such cases.

Having already taken up far more space than I intended, I will finish these remarks by a few observations on the mode of treatment. It will be seen from the above cases, that we may apply the strapping at any time, from a few hours after the disease has appeared, to a fortnight, or even longer. It generally speedily relieves the pain, but some cases there are where, from violent exercise, or, perhaps, idiosyncrasy, the patient cannot bear the pressure. As a general rule, I should say, that if after the first quarter of an hour of the application, the patient should have much pain, and *increasing* in violence, the strapping should be temporarily removed. If the straps be applied uniformly, and tolerably firm, this will seldom be required. Much, of course, depends on the mode in which the operation is performed, for it is not so easily done as may be imagined; and it would be worth while for a surgeon to go some way to see it properly performed, which he will, most probably, at any large hospital. Care should be taken to place the first strip tightly round the cord, immediately above the testicle, and to continue the strips tightly downwards, with perpendicular ones also to give plenty of support. Soap or adhesive plaster is generally used at first; but in more chronic cases, the Emplastrum Hydrargyri cum Ammoniac may be substituted.

It will generally be found that a few minutes after the strapping is properly applied the pain is relieved. In

a day or two the testis is so much diminished in size that the straps are very loose; they may then be reapplied once, twice, or thrice, according to the state of the case. I have seen a patient in the greatest agony before the application, and in an hour after the straps have been put on he has been able to walk about almost without pain.

The earlier the remedy is applied the less will be the induration remaining after the inflammatory stage has subsided.

Lastly, (and that not of the least consequence to the surgeon,) the patient will be delighted with the safe, speedy, and almost painless recovery from a very unpleasant disease, and will be grateful for the means of relief being used without discovering to his friends the nature of his malady. More especially will he value this simple and easy mode of treatment if he has unfortunately been the subject of the same disease before, and has had to submit to the nausea consequent on the use of emetic tartar, or the salivation caused by the calomel he has taken, as well as to the troublesome application of leeches and fomentations, to say nothing of the loss of time from being obliged to remain in bed or on a couch for days or even weeks.

Crewkerne, January 29, 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.)

I. PRELIMINARY OBSERVATIONS.

A great number of practitioners, even in the present day, confound all the acute cerebral affections of infancy under the term *acute hydrocephalus*, or *tubercular meningitis*; and the error has continued, although many attempts to introduce a more strict pathology have been made, even as long since as the end of the last century.

Thus Hopfengartner, who wrote in 1802, has distinguished meningitis from acute hydrocephalus, and it is evident from the tenor of his observations, that under the former term he alludes to the same form of the disease which it is our object to illustrate in the present communication. "From the very onset of the disease," he observes, "and without any precursory symptoms, the children complain of pains in the head and abdomen; on the second day they keep their bed, and the disease proceeds without those remissions which we notice in acute hydrocephalus. The patients are dull, the eyelids close convulsively; the teeth are fixed, and deglutition is difficult. Constipation is not so obstinate as in hydrocephalus. There is in general little or no vomiting and the pulse is small and slow. Coma supervenes much more rapidly than in hydrocephalus. The patient usually dies about the fifth or sixth day. After death the membranes are found to be inflamed throughout their whole extent."

This description evidently refers to acute meningitis but the author has committed an error in stating that vomiting is absent, and that the pulse is feeble and slow; on the contrary, vomiting is very generally present, and the pulse though feeble, is not slow.

Coincet, while he admits that hydrocephalus is the result of a peculiar inflammation of the lining membrane of the ventricles, establishes a distinction between phrenitis and dropsy of the ventricles.

Matthey also separates the disease which he terms *hydro-meningitis*, from the water on the brain which follows scarlatina, and also from sub-acute hydrocephalus. This latter variety is that described by Whytt and corresponds to the tubercular meningitis of recent writers. The hydro-meningitis of Matthey offers on the contrary a close analogy with the disease in question. Its characters as stated by Matthey are as follows:—"More or less headache, sickness, spasmodic movements of the limbs, brilliancy of the eyes, quiet delirium, contraction of the pupils, quick and small pulse, coma. After death, gelatinous effusion on the surface of the brain, seldom in the ventricles."

Jahn (*Analekten über Kinderkrankheiten*, 1835,) describes a form of disease similar to our acute meningitis under the denomination of *idiopathic encephalitis*. It is characterized by intense fever, with quick breathing, thirst, great susceptibility to light and noise, brilliancy of the eyes, frequent vomiting, obstinate costiveness, &c. The anatomical characters, as stated by the author, are:—

1. Injection of the brain and its membranes.
2. Induration of the cerebral substance.
3. Effusion of a greenish lymph in the anfractuositities of the brain, and along the course of the vessels.
4. Absence of serous effusion in the ventricles.

Evanson and Naunsel have also distinguished arachnitis of the convexity of the brain, from inflammation of the membranes at the base, and hydrocephalus. They observe:—"Infants are not exempt from arachnitis of the convexity of the brain, although this form of inflammation is less common than the preceding, (hydrocephalus and inflammation of the base.)" But we need not multiply quotations; those already adduced suffice to demonstrate that several writers have endeavoured to distinguish hydrocephalus from acute inflammation of the nervous centres.

From the time that the term hydrocephalus was exchanged for that of *meningitis*, confusion was re-established,—a confusion which was increased by the terminology. It was rational enough to distinguish hydrocephalus from meningitis; but what good could arise from making two forms of meningitis? Those who had written of the disease under this term, as Golis, Senn, Charpentier, &c., confounded both forms under the same description; but others, as Parent and Martinet, at once separated inflammation of the base from that of the convexity of the brain, and recognized the fact, that in infants the former was a far more common affection than the latter.

From the period at which the writings of MM. Papavoine and Rafz contributed so much to the elucidation of the true nature of acute hydrocephalus, the