

not think that it would have been fair to have performed lithotomy.

In concluding this hurried paper on the subject of litholapaxy in young male children, I hope that the series of cases I now bring forward may induce some of my professional brethren in India, whose opportunities of treating stone in the bladder are much greater than mine, to give this "new departure" in litholapaxy a fair and patient trial. I am not, however, prepared to recommend this operation in young children labouring under the presence of a very hard mulberry calculus, for I have hitherto not come across a case of the kind, but with a sufficiently strong lithotrite I should not hesitate to perform litholapaxy in such cases. Stone in the bladder is not a very common disease in Western Malwa, and the majority of the cases of this disease, which seek admission into the Indore Charitable Hospital, come in from very long distances and from other provinces. I am, however, sanguine, that before the close of the present year I may be in a position to lay before the profession a further series of cases of this kind backed up by fuller details than I have been able to furnish in table B.

SUPPLEMENTARY NOTES ON THE SPECIFIC POISON CONTAINED IN CHOLERAIC ALVINE DISCHARGES.

By VINCENT RICHARDS, F.R.C.S.

The few further experiments which I have been enabled to conduct seem to show that the specific poison to which I have drawn attention, is not by any means invariably present even in true choleraic alvine discharges which have not undergone putrefaction. At times though present it appears to have lost much of its power—especially is this so in those cases occurring at the end of an epidemic. Under what conditions the poison is present and its power modified, it is yet impossible to say, though it will be my endeavour to discover. It must be remembered, however, that the enquiry is likely to be a protracted one, seeing that the opportunities for experiment are so desultory and that the inherent difficulties of the subject are so formidable.

I may offer a few more remarks upon the nature of what I will term—Cholera-virus. If we admit that the cholera-producing agent is of the nature of a chemical compound, we can easily understand how, under exceptional insanitary and climatic

conditions, it might be spontaneously generated. We are all familiar with the fact that cholera generally follows in the wake of such great calamities as famines and floods—for example after the famine of 1865-66, and the destructive storm-wave in the Backergunge District in 1876. This suggestion is not at all an outrageous one. Take for example hydrophobic saliva. Ordinarily the saliva of the dog is perfectly innocent, but under certain conditions it becomes a subtle poison owing to some chemical change which has taken place in its constitution. In the case of human saliva it is innocuous, but it may be rendered extremely poisonous by mere concentration. Again in the case of venomous snakes a most subtle poison is produced by a chemical process from the most innocent elements. Why should not local conditions of filth, and climate act to convert a non-specific agent into a specific one? No doubt all this is hypothetical, but it seems to me that it explains more satisfactorily than any other theory the apparently erratic behaviour of cholera-virus.

Goalundo, April 26th.

ON THE TREATMENT OF SMALL-POX AND CHICKEN-POX BY THE EXTERNAL APPLICATION OF CALCIUM SULPHIDE LOTION.

By SURGEON-MAJOR C. J. PETERS,
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Some twelve years ago, while attached to the Civil and Staff Hospital at Belgaum, I had a few cases of small-pox, in which I wanted to try the efficacy of the different remedies that were recommended at that time for the prevention of "pitting" in small-pox. Amongst other things was the sulphuret of calcium lotion, which is prepared as follows:—

Take of

Quicklime	...	One-quarter pound.
Sulphur	...	Half a pound.
Water	...	Five imperial pints.

Boil in an earthenware or porcelain vessel and evaporate down to three pints; filter; preserve in glass-stoppered bottles. The product is calcium pentasulphide and calcium hyposulphite. The solution is of a rich golden color; when prepared with ordinary well or river water, it is liable to deposit a white precipitate after it has been kept for 3 or 4 days, and become colorless when it is no longer efficacious. It should, therefore, be freshly prepared, and in only

small quantities at a time sufficient for three or four days' use.

The following treatment was adopted :—Each patient was to have a dose of aperient on first admission and an ounce of the ordinary diaphoretic mixture containing liquor ammonia acetatis, spiritus etheris nitrosi, potassae nitras, with 5 or 10 minimis of vinum ipecacuanha, every 2, 3, or 4 hours according to the urgency of the febrile symptoms.

Externally the freshly prepared sulphide of calcium lotion was applied with a feather over the eruptions as they appeared, taking care that the solution did not drop into the eyes. This was done two or three times daily, and it was observed that the eruptions so painted began to wither on the 3rd or 4th day, while the adjacent healthy skin shewed no marks of being in any way affected. This enabled us to detect the fresh eruptions as they appeared, and each one of these was in its turn painted with the lotion. The application was in this way continued until the dry scabs began to separate ; this generally occurred about the 9th or 10th day, over the face and in the lower extremities 4 or 5 days later.

As a rule there was no *suppuration*, and when the scabs dropped off they left a moist surface which was subsequently treated with an inunction of weak carbolic oil (1 in 20), which was applied over the whole body, and followed by a warm bath which was given every two or three days. The inunction was continued until all the scabs had dropped off and all the excoriated surfaces had healed, when, after thorough disinfection of clothing, &c., the patient was discharged.

Whatever the effect of this treatment may have been upon the "pitting" I cannot say, for I have not been fortunate enough to see the patient subsequently, so as to be able to form an opinion as to whether any marks of pitting were left, but there were many more obvious advantages gained by the external application of this calcium sulphide lotion, *viz.* :—

1st.—There was no secondary fever.

2nd.—There was no suppuration, or any offensive discharge.

3rd.—After the primary fever had subsided the patient was as a rule able to move about.

4th.—By the early destruction of the small-pox germs the danger of contagion was averted.

5th.—An early recovery.

Having been so far successful with about half-a-dozen cases which I had at the time, I was determined to give this method of treatment a trial whenever an opportunity presented itself.

During the famine years 1877-78 I was stationed again in Belgaum with my Régiment, the 2nd Prince of Wales' Own Grenadiers, Bombay Native Infantry. A number of the men, and some of their relatives, were suffering from chicken-pox, and I treated them also with the external application of the sulphuret of calcium lotion with the happy result that they were fit for duty much earlier than when no such external treatment was used.

Later on a number of small-pox cases came into the Civil Hospital with the famine immigrants, a few of them came in advanced stages of the disease, and in a very debilitated condition, and died before a fair trial could be given ; but those who were received early, made a rapid recovery under this plan of treatment.

At the close of the year 1878 the Regiment marched in the course of relief to Nusseerabad in Rajputana, where small-pox is very prevalent ; and shortly after our arrival there a death was reported amongst the followers obtained from the Cantonment Bazar, and on inspection of the body the cause was found to be confluent small-pox. There were two other children in the same family who were at once isolated and vaccinated, the elder of the two was suffering from fever at the time, and soon after got small-pox of a semi-confluent type, and was treated with the calcium sulphide lotion with satisfactory results, *viz.* :—there was no secondary fever ; no suppuration, and an early recovery ; the other child was previously vaccinated, and did not take the infection, neither did the parents who had marks of small-pox.

Shortly after this, I was appointed to the British Agency and Consulate General at Zanzibar. Towards the end of the year 1880, a slave dhow was captured with about 90 odd slaves on board, who were liberated, and some of the children were taken over by the Universities' Mission. The girls were sent to the institution at Mhweni some 5 miles from Zanzibar, where the boys were kept in the Town Mission House. Some of these children took ill with small-pox at both these places simultaneously, and it appeared that some of their number had small-pox on the voyage, so that it was evident that they had brought the infection from the mainland.

The boys were isolated and sent away outside the town and accommodated in a hut where they were left in charge of a nurse, and the treatment with calcium sulphide lotion was carried out with satisfactory results even when the disease was of the confluent or semi-confluent type.

I believe that the calcium sulphide lotion acts by destroying the germs of the disease and arresting the formation of pus, and thus leads not only towards an early recovery but also prevents those complications which arise from blood-poisoning, such as pyæmic abscesses and suppuration of joints.

Now that calcium sulphide is given internally to prevent suppuration, I would be induced to give $\frac{1}{4}$ grain doses in pills where suppuration has already commenced.

I venture to bring this mode of treating small-pox by the external use of the calcium sulphide lotion to notice, with the hope that it may receive a more extended trial.

CASES OF SMALL-POX TREATED WITH CALCIUM SULPHIDE LOTION.

1. Arjun Wallad Luxumun, a doolie bearer, admitted into the Belgaum Civil and Staff Hospital 4th August 1872. Had fever for 3 days previous to admission. Face covered with confluent small-pox ; on the trunk and extremities the eruptions are more isolated. Patient was vaccinated on the day of admission, and the small-pox eruptions were painted over with a freshly prepared solution of calcium sulphide. On the second day after the application the eruptions began to wither, on the third day they were looking as if charred, the black colour becoming deeper every day, and in the course of 8 or 9 days the crusts began to fall off. As fresh eruptions appeared, they were treated similarly and with similar results. Patient was discharged on the 31st August after all the scabs had dropped off.

2. Gungia Wallud Lembia, ghorawallah, admitted 16th September 1872 with small-pox. Face rather thickly covered with eruptions, more distinct on the trunk and extremities. The eruptions were painted with the lotion prepared on the former occasion six weeks ago, but it failed to have any effect, and on examination it was found to have decomposed. Hence carbolic oil (1 in 4 parts) was applied. There was secondary fever about the tenth day. Patient absconded on the 14th October when the scabs had nearly dropped off.

3. Panswami Veraswami, 6 years old, admitted 27th October, 1872. Had fever two days. Eruptions of modified small-pox covered the face, trunk and arms. No secondary fever. Discharged 16th November, 1872.

4. Nina Veraswami, 3 years old, brother of the preceding case, admitted on the same date. Had fever four days before admission. Face covered with eruptions. Both children were discharged on the 16th November 1872, on the 20th day after admission.

5. Syud Cassim, Mussulman, butler, 40 years of age. Small-pox eruptions appeared 28th February 1873. Admitted into hospital 2nd March and treated with the calcium sulphide lotion. Ten days after the first application all the scabs had fallen off. There was no secondary fever.

6. Babu Narayan, tent lascar, aged about 28 years, Hindu, admitted 4th March. Eruptions had appeared on the previous day. On the 14th the scabs were dropping off. Patient was discharged after all the scabs had fallen off.

Unfortunately the dates on which the last two named patients were discharged have not been entered in the notes of these cases.

The notes of the cases treated subsequently have not been kept.

Khandala, 12th March, 1884.

A MIRROR OF HOSPITAL PRACTICE.

FEROZEPORE DISPENSARY.

SCROFULOUS DISEASE OF KNEE JOINT; AMPUTATION OF THIGH, UNION BY FIRST INTENTION; DEATH FROM DIARRHœA.

BY SURGEON R. J. POLDEN.

The following case is interesting as showing the grand pair of tissue nature can effect under most unfavourable conditions :—

Aroor Singh, Hindoo, aged 28 years, presented himself for treatment at Ferozepore Dispensary on February 15th, 1884, suffering from extensive scrofulous disease of the right knee joint of long standing.

On admission he was fearfully emaciated ; the knee joint was greatly enlarged and inflamed, and a fetid discharge issued from its many sinuses.

On account of patient's debilitated condition the case was most unfavourable for operation, so I ordered nourishing food, Syrup. ferri iodidi $\frac{3}{4}$ i. ter in die and charcoal poultices to affected part.

On 19th the limb was much cleaner, but discharge was very profuse ; the patient, however, looked somewhat better than before, and was very anxious that I should operate : his condition was so wretched that I considered it necessary, previous to operation, to warn the man and his friends that the chances were in favour of his dying on the operating table.

On the 19th February I amputated thigh at upper third by antero-external and posterio-internal ovoid flaps.