present. To Miss Singh I am indebted for the unremitting care and attention bestowed by her upon the patient.

I have thought the case worthy of record by reason of the enormous size attained by the tumour. This could only have been possible in a country where application for surgical aid is often put off until the last moment. It is hard to understand how the abdominal organs can have continued to carry on their functions unimpaired under the pressure to which they were subjected.

COMPLETE RUPTURE OF UTERUS.

BY P. DEE,

MAJOR, I.M.S.,

Civil Surgeon, Bassein.

THE patient in question was admitted to hospital at 11-30 A.M., on 23rd December 1907 for complete uterine inertia. She came from her village in an open boat and was brought from the shore to the hospital doubled up in a child's wooden cradle.

History.—She had had four healthy children and all her labours were normal, but the age of the last born was eight years, since which time she had not conceived.

The present labour started at midnight of the 22nd December 1907, and all pains ceased at cock-crow (probably about 3 A.M., on the 23rd December). She was brought to hospital to be delivered on account of pain ceasing.

On admission.—A well-nourished muscular woman of the cultivator class, about 35 or 36 years of age. Pulse 90 per minute and full. Temperature 98·8. Respiration 30. She looked and felt well and complained of nothing but slight abdominal tenderness on pressure. Urine was withdrawn and an enema administered, which latter acted freely. Passing the hospital at about 1-15 P.M., I happened to go in and the case was mentioned to me. On examination I found a head presentation, and on abdominal palpation, I diagnosed a right occipito posterior position. The head appeared to be firmly fixed in the brim.

There was some difficulty in making out the position of the child by abdominal palpation, and just as my examination was completed, I felt what I took to be either a knee or an elbow immediately below the umbilicus. The limb appeared to be just under the abdominal wall, but could not be traced or felt for more than an inch or two. I diagnosed the case as one of rupture of the uterus, but, on the other hand, I was not by any means sure of my diagnosis.

A sedative was given, and leaving directions as to where I could be found, I went away, stating I would return in about 1½ hours.

On my return at about 3-15 P.M., the woman was in exactly the same condition and carrying on a brisk conversation with a friend.

Chloroform was given and a forcep applied which without much traction slipped off the head twice, though on each occasion the head descended far enough to be seen distinctly between the blades. I then inserted my hand into the vagina and found that the head was freely moveable, and slipping a finger up behind it, discovered a rent in the uterus.

On withdrawing my hand, it appeared that my manipulation had started hæmorrhage. The patient was immediately prepared for operation. I had to assist me a European Nurse who had arrived from England the previous day, a Hospital Assistant, who was giving chloroform, and a ward dresser; the latter being a boy taken from the bazaar, the son of a hackney carriage driver, and trained in this hospital. The abdomen was opened in the middle line and the fœtus (full term) found free in the abdominal cavity together with the placenta which lay on the left side, the fœtus being in front of the uterus except the head which was still on the uterine cavity. On withdrawing fœtus and placenta, free hæmorrhage took place.

Having no suitable instruments in the way of clamps or long-shanked artery forceps, an attempt was made to ligature the vessels in the broad ligament, but being too slow, was given up. I then clamped with ordinary Spencer Well's forceps, cut and clamped again, in this way putting on four forceps on each side. A stout silk ligature was passed through uterus below the rent and the upper portion cut away. Ligatures were applied and the abdominal wound closed by one lot of interrupted silkworm gut sutures. The ends of the ligature through the stump were passed through the parietes and the ligature thus drew the raw surface of stump into contact with anterior abdominal wall and also closed lower part of incision. Drainage was provided by two large rubber drainage tubes placed side by side.

The reason stump was treated in this way was that patient looked like dying on the table, and speed was absolutely necessary. One hypodermic injection of strychnine was given during the operation, and before the patient was taken from the table, two pints of saline were given by rectum.

Patient recovered pretty rapidly after the operation, though the pulse was small and thready up to the end, but it never exceeded 120 and that only immediately after the operation.

After-treatment.—Frequent saline injection by the rectum, all of which were retained and evidently absorbed. Hypodermic injection of strychnine and adrenaline, the latter every two hours. Urine drawn by catheter. Rectal feeding, brandy, bovril, egg. Next day the patient seemed in fairly good condition, considering the severity and shock of the operation and would insist on talking to a friend who was in attendance. She also almost insisted on

having a bath. On the evening of the 24th, about 7 P. M., she was a little restless and said she was feeling hot, but otherwise her condition was satisfactory, and I was on the whole rather surprised to hear on my arrival at the hospital the following morning at about 6-45 A.M., that she had died about quarter of an hour previously. The one thing that I regret about this case is that I did not trust to my diagnosis and operate at once; had I done so, it might not have been necessary to remove the uterus, and my efforts to deliver by the natural passage undoubtedly did a lot of harm. In justification I might say that it is one thing to tackle a case of this kind in a hospital at home with skilled help available and all modern appliances; it is quite another thing when you are all alone. In removing the uterus I had to work to a large extent by sense of touch, as I could not see properly owing to the bad light, and the fact that I did not possess a suitable retractor. The intestines also gave a lot of trouble, as no aseptic towels were at hand and there was no time to prepare any before operating.

If one can judge by a single case, and I suppose to a small extent one can form an idea, I should be inclined to say that the correct treatment is not to attempt vaginal extraction in the first instance, but to make an abdominal incision, and then if the rupture is complete, to deliver by the abdominal route.

I have no literature on the subject available, but I should very much like to know if it would not be feasible to suture the uterus, plug the same, and drain either by lower part of opening in abdomen or preferably by doing a small posterior colporrhaphy, and so avoid the tremendous shock of hysterectomy following on labour.

Personally, I am of opinion that ruptured uterus is fairly common throughout Burma for the following reason. The usual practice amongst the villagers is that, if the child is not delivered quickly, all the old women friends collect round the patient and take turns to pound, knead and kneel on her abdomen; in fact, they use vis-a-tergo in its fullest sense.

I personally have seen as many as five old hags kneeling on and kneading a patient, and I have been informed by one man, that a woman using a rope suspended above a patient as a support, pulled herself up by it, and then dropped with her full weight on to the patient's abdomen. Under such circumstances ruptures of the uterus, if not common, ought to be, although the cases are seldom seen by Civil Surgeons.

The case I have reported certainly bears out the fact that rupture of the uterus can occur with very few symptoms, as I only noted two, *viz.*, the presence of a limb close beneath the skin and the complete cessation of labour pains in a normal head presentation. Of course, I had in my mind's eye the usual practice of the Burman village midwife, though this was slightly misleading, as I attributed the slight tenderness of the abdomen to the kneading and pounding I was almost sure the woman had received.

A CASE OF "SURRA" IN MANIPUR.*

BY THE LATE JOHN CATTO, M.B., D.P.H.,
LIEUTENANT, I.M.S.

I REGRET I have been unable to consult any authoritative work on trypanosomes or on surra, but send the following disjointed notes, as I believe trypanosomiasis has not been found before in Manipur, although, doubtless, it is common enough, though the deaths may be attributed to anthrax, which is very common here.

Finding the disease here is of interest because it helps to connect the cases of surra in Bengal with those in Burma, and it may be information useful to transport authorities intending to reach Burma by the Kohima-Manipur Route.

Manipur proper is an irregular oval flat valley, 40 miles long by 20 miles broad. The climate is very damp and moist and the rainfall is about 50. I am informed that insect life is much less since a flood.

Blood-sucking diptera are common during the hot season only, but on dogs a blood-sucking fly is found all the year round, though many fewer are got in the cold season.

Out of 12 transport Manipuri ponies the fastest was noticed off condition in early September. He gradually got weaker till he could stand with difficulty, when trypanosomes were found in his blood and he was shot.

The chief points noticeable were weakness and anæmia, intensely foul emanations, hurried breathing, frequent micturition with loss of hair from a dry staring coat. The anæmia was judged by a dull yellow brown colour of the lip mucous membrane. There were no petechiæ of visible mucous membranes, nor was there any ulceration, œdema of legs, nor intermissions of the illness.

On two occasions the blood was examined, but no trypanosomes were found. I found trypanosomes in great numbers for the first time on 1st October in films taken the day before. On my reporting this to the Transport Officer, he shot the pony.

A *post-mortem* examination was made two hours after death.

The coat stary, hair falling out, skin dry, pony much emaciated and the remaining fat of an extremely yellow tint.

Mucous membranes of mouth, nose, and eyes yellow brown, with no ulceration.

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* Only a few days after receiving the MS. of this article we heard the news of the sad death from Cholera in Manipur of the author.—ED., *I. M. G.*