six cases of typhus treated in the City Hospital, South Liverpool, during the past twelve months, may be of service. The insoluble and tasteless powder was given in thirty-grain doses mixed with beef-tea, warm milk, or whisky-and-water at 8 or 8.30 P.M. The largest amount given was ninety grains in three doses divided over a period of six hours. The typhus was of a severe type, diarrhœa being present in a large number of cases, and exerting its influence in this as in all febrile disorders, as perhaps the most pernicious symptom to be dealt with, the frequent ochrey-yellow alkaline "typhoid" stools, now almost rare in our enteric wards, reappearing amongst these typhus cases. In all the cases from which these notes were taken the spotted abundant eruption of typhus was present and unmistakable.

In nearly all cases sleeplessness had been present for a period of twenty-four hours and upwards before the drug was first given, and was associated with active delirium, and an estimate of its effect as a sleep inducer cannot be separated from consideration of its calming effect on delirium; in the few cases in which the drug had no immediate effect in causing sleep it was noted that the delirium was lessened and that the patient became quieter. After the sleep of sulphonal it was usual to find patients previously violently delirious had become quieter and more rational. Only in one case was it noted that the patient had become "more violently delirious and restless" after the drug; on the dose being repeated he still remained restless and delirious for three hours, then became quiet and had sound sleep for five hours, awaking quiet and sensible. This man had been a heavy drinker, consequently the delirium was intractable. The time before sleep was induced was commonly half an hour, the shortest time less than ten minutes, the longest three hours (the above case, and a case of maniacal delirium after abortion), and four hours (one case of pneumonia in which the next night sleep followed in half an hour). The drug failed in two cases to produce sleep; in one it was administered in the afternoon, in a case in which typhus and typhoid were both present, with severe diarrhœa and delirium, opium in considerable doses also failed; in the other the failure was due in great measure to the fact that the patient was under partial restraint, owing to violence of delirium, chloral also failing from the same cause. In five cases the first dose given failed, and had to be repeated, sleep following second dose, given four hours later; in four cases, in one a powerful man very violently delirious, and who had recently drunk hard, sleep did not ensue until after the third dose on two occasions, the three doses being given in one instance within nine hours, and on the following night within six hours. This man was afterwards quiet and tractable, and made a good recovery. The duration of the sleep averaged from three to five hours, the longest being twelve hours, the shortest an hour and a half. The character of the sleep in the majority of cases was sound natural sleep, from which the patients could easily be roused for nourishment, quickly dozing off again. In a few moaning and slight uneasiness were noted; in many the effect lasted during the following day, the patients being drowsy and sleeping at intervals. The patient's own sensations were seldom obtainable, owing to the mental condition. Equally no suggestion was present in their minds as to the anticipated effect of the powder, but the more rational always expressed themselves as feeling better after sleep; none suffered from headache. In a large proportion of cases pulmonary congestion was severe; in a minority pneumonia was present. These cases exhibited no increase of dyspnœa or lividity after taking the drug; in no case was the pulse found to be altered in force, volume, or rhythm. Dryness of either the tongue or skin was not increased. Moistening of the edges of the tongue and sweating were occasionally noted on the day after the powder was given. Any possible effect of the drug as a factor in the causation of the diarrhœa was carefully negatived. The difficulties in the way of obtaining evidence as to any effect on secretion of urine appeared insuperable as separate from those of the disease itself, albuminuria being usually present on admission. Diminution, increase, retention, and incontinence of urine were fairly common symptoms.

In only one case was there any suggestion of possible ill-effect of the drug. It was a man aged twenty-two years, in whom from the first there was evidence of profound heart failure, rapid cardiac dilatation, associated with petechial rash and albuminuria in excess; the whole condition pointing to impending collapse, which actually occurred at

the time of the crisis. The temperature fell in a few hours from 104° to normal. Death ensued five days later, on the eighteenth day. Sulphonal had been given twice the previous night; but on careful examination of the facts of the case it would not seem to have contributed towards the fatal result, which was due to collapse at the time of the expected crisis. In this case diarrhœa, by far the most fatal factor in this series of cases, was present almost throughout the illness.

As far as these cases can be fairly said to prove anything, they indicate clearly that sulphonal is of very great value as a means of inducing sleep in typhus, and remarkably free from attendant disadvantages. With the few exceptions above noted, easy natural sleep was with certainty induced within a reasonable time, and the condition was again easily established on subsequent occasions. The patients benefited by the rest, and in no case suffered from the remedy. I have to thank Dr. Wm. Irvine, under whose care these cases were admitted, for permission to publish these notes.

A CASE OF

INTRA-PERITONEAL HÆMATOCELE DUE TO RUPTURE OF A TUBAL PREGNANCY TREATED BY ABDOMINAL SECTION, AND REMOVAL OF THE RUPTURED TUBE.

By LAWSON TAIT, F.R.C.S., &c.

NOTHING could offer a more striking—indeed I may say a more startling—contrast than the case I am now about to narrate when compared with the case narrated in THE LANCET of Aug. 24th by Mr. T. N. Thomas of Leicester. On the morning of Aug. 20th, at 11 o'clock, Dr. Thomas Nelson, of this city, walked into my consulting-room and told me that he had seen, the night before, a married woman of twenty-six, who had complained of sudden access of pain and discomfort in the lower part of the abdomen. She had rapidly got worse, and when seen by him on the morning in question she was found in a condition of collapse, acute anæmia, and all the symptoms of internal abdominal hæmorrhage, and the one point in the history which gave him a clue to the nature of the case was that she had gone two weeks past her time of expected menstruation. He made the diagnosis of ruptured tubal pregnancy, and from his description of the case I had no hesitation in concurring with him. I advised him to bring the patient in a vehicle to my private hospital as rapidly as he possibly could, whilst meantime I made all necessary preparations for immediate abdominal section. Within an hour everything was ready; the patient was found to be absolutely pulseless. She was anæsthetised. I opened the abdomen and, as one of the spectators afterwards said to me, "the rush of blood was as if I had opened a hydrant." Regardless of the blood and blood clots, I went straight for the fundus of the uterus, and in a moment discovered that the tubal pregnancy existed and had ruptured in the right Fallopian tube. Passing a needle swiftly into its base, I tied the broad ligament, cut off the tube and ovary, and then a little more leisurely proceeded to remove many pounds of clots and blood serum from all parts of the abdomen. I closed the abdominal wound, leaving in a drainage-tube. Not a single drop of blood was lost, and the progress of the case is briefly this. At 5 P.M. on the day of the operation the temperature was 36°, and no pulse could be felt save a slight flickering on deep pressure at the root of the neck. The patient's pupils were widely dilated, and did not respond to the stimulus of light. The only appearance of life was a slight movement of the nasal cartilages and of the diaphragm. Her face was a ghastly waxen yellow. By 11 P.M. the temperature had risen to 38°, but no pulse was perceptible, nor did the slightest flicker make its appearance till thirty-six hours after the operation, and it was fully forty-eight hours before it was possible to count it. The first record gives pulse 140; on the 22nd it came down to 126; on the 23rd it came down to 103; and on the morning of the 24th the temperature was 37°, and pulse 89, the abdomen being perfectly flat. In the evening of the same day she passed a characteristic decidua. She is now beginning to eat,

is perfectly comfortable, and may be regarded as having already entirely recovered from her serious condition.

In Mr. Thomas's case the tubal pregnancy ruptured outside the peritoneum; in this case the rupture took place into the peritoneal cavity. The trouble in both cases was the same—hæmorrhage. In Mr. Thomas's case the hæmorrhage was limited by the hæmostatic influence of the broad ligament. In my case there were none of nature's efforts to arrest the hæmorrhage, and in another hour it would have been hopelessly fatal. The differential diagnosis was made by the presence of a supra-pubic tumour in Mr. Thomas's case, and the absence of such in mine. This is the point upon which I have always laid most stress. The case was seen and the operation performed in the presence of Dr. Thomas Nelson, and my assistant, Mr. Teichelmann, Dr. Ostrom of New York, Dr. Arthur Johnstone of Danville, Kentucky, and Mr. O'Callaghan of the city of Carlow, and it constitutes the forty-fifth of the kind I have operated upon.

Mr. Teichelmann made a careful examination of the preparation, and the rent in the tube is not more than a quarter of an inch in extent, the foetus is of not more than the fourth week of its existence, and lies in its membranes still *in situ* within the torn tube. There is no blood within the cavity of the tube, and the size of the mass is mainly due to effusion of blood in the muscular coat supporting the layers in all directions.

Birmingham.

REMOVAL OF SPLEEN.

By W. K. HATCH, F.R.C.S.

ALTHOUGH this case was a failure as far as the result was concerned, yet there are some points of interest connected with it which make it worth recording.

Enlarged spleens are common enough in India, but the operation of removal is seldom performed, nor would I press anyone to undergo it, although several successful cases have been recorded. The risks are so great that after a proper explanation of them has been given to the patient he may well be left to decide as to whether he is willing to undergo the operation. This patient came into the hospital urgently requesting to have the spleen removed, and therefore took on himself the bulk of the responsibility. At first he was treated in the medical wards by Surgeon Dimmock, but only a very slight improvement took place in his condition. As to when it is advisable to remove a spleen there are no very definite rules as far as I am aware. If, as in this case, the patient's life were made miserable, and medical treatment had given little or no relief, then I should say it might be considered desirable to operate. No one surgeon has had sufficient experience of these cases to formulate any precise rules as to the choice of cases for operation. I have myself only seen the operation once performed, and that on a man with a very soft spleen. The difficulties of "delivering" such a spleen are very great; certainly a firm, hard spleen is much more easily manipulated, and therefore more favourable for operation. The presence of adhesions cannot easily be diagnosed beforehand; the huge mass always appears unwieldy and more or less fixed above, though the margins may be easily elevated and depressed. In the present instance adhesions to the diaphragm were the direct cause of failure, nor do I see how their presence could have been detected. Apart from the danger of hæmorrhage by rupture of the spleen itself, or some of its vessels, the operation cannot be said to have any special dangers greater than those of ovariectomy, for instance; but this danger is so great that it almost negatives the desirability of performing it. Even from the abdominal incision the bleeding is very free, owing to the poor condition of the blood.

The patient, an extremely emaciated Hindoo of about thirty years of age, with the characteristic sallow appearance and flabby condition seen in cases of enlarged spleen, said that about eight months ago he had had fever (quotidian), not preceded by chills, but followed by profuse perspiration. This continued for a month, and then left him; a small swelling then appeared at the left costal margin, which gradually increased, but without pain; the weight caused him considerable inconvenience. Previously to this he had never suffered much from fever, but, being a pro-

fessional beggar, was a good deal exposed at night, and lived in an unhealthy locality; at one time he had been intemperate in his habits. Had suffered from dysentery and puffiness of the feet and legs from time to time. He was extremely anæmic and emaciated, the abdomen looking very large in comparison with the wasted limbs and thorax, the legs œdematous. There was slight bronchitis, also diarrhœa, with blood and slime in the stools. The conjunctivæ were tinged yellow, and night blindness was complained of. The abdomen was much enlarged, and contained a small amount of fluid; a tumour (the spleen) extended from the left costal margin, and an inch below the umbilicus, and as far as the median line; it was somewhat movable, with a hard and smooth surface; the notch could be felt about an inch above the umbilicus. The tumour was painful, particularly during movement, and the patient himself said that he would rather die than remain burdened with his disease. The liver dulness was normal; the urine contained a slight amount of albumen, but no casts. Heart action weak, but normal. As before stated, the man was first treated in the medical wards, and there was some relief of the abdominal dropsy; the tumour continued painful. Quinine, arsenic, and iodide of potassium were given internally, and mercurial ointment was rubbed over the spleen. After two months of this treatment a very small diminution was recorded; but the man was not satisfied, and begged for removal of the tumour. The dangers of the operation were fully explained, and the patient remained firm in his determination to undergo it, merely stipulating that if he died his body was to be removed by Hindoos. I accordingly undertook to operate, and performed the operation on Aug. 14th, 1888, Surgeon-Major Banks and Surgeon Dimmock being present. A free abdominal incision was made, and the very free oozing stopped before opening the abdominal cavity. When this was done the interior was well illuminated by the electric light and the spleen examined. The hand was then carefully passed round in order to ligature the splenic vessels. While doing this adhesions were felt between the diaphragm and the spleen during their separation, which was most cautiously done. Hæmorrhage to an alarming extent suddenly occurred, the ligature was applied as rapidly as possible, but not before a considerable quantity of blood had been lost. The separation and delivery of the spleen were thus completed without difficulty. The peritoneal cavity having been cleansed and the pedicle inspected, the wound was closed and dressed with dry dressings. A saline injection was introduced into the right basilic vein, as the patient was in rather a critical condition. For a time he rallied, but became again collapsed, and died the same evening. Examination of the spleen showed that it was a suitable one for removal. It was extremely hard, and much pigmented; there were some rents in the capsule where adherent to the diaphragm. Post-mortem examination showed that the pedicle was safely secured; but there had been considerable oozing from the diaphragm, and ten ounces of blood were present in the abdominal cavity. It is not such an easy matter, as would appear from Sir Spencer Wells's case, to successfully pass the ligature without causing injury to the vessel or the organ itself, and very great care is required in this procedure. Should such injury occur, the bleeding is not easily controlled.

Bombay.

CASE OF SUICIDE AT GREENWICH.—A very determined and carefully planned suicide has recently occurred in Greenwich, where the deceased, who left voluminous descriptions of what he was about to do, with directions to assist the coroner to identify the articles left behind, seems to have swallowed 128 pills or pellets of crude opium, such as are used for smoking in the East, and weighing about a grain each. In addition to the 128 pills swallowed, 242 more were found, as to which the deceased considerably left a request that the remainder should be destroyed, for fear they should fall into the hands of some person unacquainted with the effects of "the mighty drug." Amongst other articles found was a tin box, which was labelled with a note saying that it contained "fresh butter and honey, to assist the palate in swallowing this great amount." The cause of the deed was ruin produced by "the cursed horse-racing," as to which the poor man goes on to remark that he had made a fair little fortune at it for years, but that this was easily spent, until at last he had lost all.