operation is rare under 2 and over 50 years. The small number operated on under 2 years of age is owing mainly to the fact that, unless the indications for the operation are very urgent, parents do not care to have infants or very young children operated on.

Indications.—The indications varied somewhat according to the age of the patient. In children up to and about 10 years of age chronic enlargement was most usually present, whilst in those about the period of puberty and onwards acute recurring swelling of moderately enlarged tonsils was generally met with. The chronic enlargement of infancy and childhood was always associated with derangement of the respiration and of sleep—noisy, snoring, and choky respiration, and restless disturbed sleep, having invariably been present. The general health was always indifferent or bad (aërial starvation); the chest was poorly developed. These symptoms, associated with chronic enlargement of the tonsils, were aggravated in many instances by certain concomitants, such as purulent rhinitis, post-nasal catarrh, and adenoid growths and enlargement of the pharyngeal tonsil—conditions which necessarily required special attention, otherwise the results of tonsillotomy might have proved disappointing. In 157 cases both tonsils were removed; in the remainder (73) one only. The cases of single tonsillotomy were those in which one tonsil only was enlarged, or in which the recurring inflammations habitually commenced in one and the same tonsil. The single tonsil was, I think, more frequently the left than the right. It is a curious fact, without explanation so far, that most lesions of the tonsils, and of the larynx also, evince a greater tendency to commence on the left side than the right.

Anæsthesia.—General anæsthesia (chloroform) was induced in nine cases, with ages varying from 4 to 13 years. In two of these it was administered to allow of the second tonsil being removed, and in four it was a condition of the operation on the part of relatives. When it is remembered that 135 of the patients were under 15 years of age, it will be admitted that the number requiring general anæsthesia was small. Local applications of 10 per cent. solutions of cocaine were made in most of the other children.

Hæmorrhage.—Profuse or troublesome bleeding never followed the operation. In the case of a man, aged 30 years, from whom a small irritable tonsil had been removed, some oozing of blood, which occurred on the second day, was readily stopped by the local application of a solution of the permanganate of iron. I am aware that instances of persistent hæmorrhage after tonsillotomy have been recorded in the medical press, and a friend of mine has informed me that he once witnessed a case of rapidly fatal hæmorrhage in the practice of a brother practitioner. I believe, however, that hæmorrhage will not occur if care be taken to leave a cleanly-cut surface, and if the faucial pillar or soft palate be not notched in the operation. It seems also, as I have shown in a previous communication, that drinking warm fluids soon after the operation favours bleeding. Small children occasionally vomit blood which has been swallowed immediately after the operation. This vomiting may be deferred for hours, and sometimes causes alarm to the relatives, unless they have been forewarned of the possibility of its occurrence.

Results.—In children the local and general results were without exception most beneficial, and the younger the child and the larger the tonsils, so much the more satisfactory was the after-condition of the patient. In two cases only (males aged 7 and 10 years) the tonsils re-enlarged, the one seven months and the other two years after the operation, and excision had again to be performed. In three adults the tonsillar stumps became inflamed in periods varying from three to fifteen months, and in one instance an acute abscess formed two years after the tonsils had been removed. It is right to remind the reader that in children these results in several instances were not attained by removal of the tonsils alone, but, in addition, by curetting or scraping the nasopharynx and posterior nares, and galvano-cauterising the anterior nares in cases in which obstruction of these regions existed. Such were almost exclusively under 10 years of age, with the marked respiratory and other troubles already referred to, and in no single instance was there failure to give marked relief.

The operation did not appear to be quite so successful in

regard to the removal of the deafness which occasionally accompanies tonsillar enlargement, though in some instances this was remedied, especially when the operation was supplemented by treatment of the naso-pharynx.

It does not fall within the scope of the present paper to discuss the serious disadvantages from which children with enlarged tonsils suffer in regard to their proclivity to diphtheria and allied complaints, and their marked tendency to develop grave types of these diseases. I am satisfied that the operation is neither bloody nor barbarous, and that its results will stand comparison with most of the other surgical procedures of the present day.

A CASE OF CÆSAREAN SECTION FOR RACHITIC DEFORMITY: RECOVERY OF MOTHER AND CHILD.

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THE following case is merely a further illustration of the principles which must surely now be generally recognised as essential for success in this operation. If we study not only the records of those who have had the largest experience and greatest success in this operation, but also the failures of some who ought to have succeeded by reason of their special knowledge of the subject, as well as the advantageous circumstances in which they are placed for performing the operation, and especially the successes of some who have no special knowledge, and have operated under circumstances such that they were unable to obtain any skilled assistance at the operation, or for the after-treatment of the case, and whose appliances were of the simplest, we are compelled to form the opinion that the requisites for success are of the simplest kind, but that they are essential, and that to disregard them is to fail:

1. No case is favourable which is septic at the time the operation is to be performed. In such cases the child can usually be disregarded, it being already dead, and we have only to consider the safety of the mother, and if we can avoid Cæsaean section should do so.

2. Absolute cleanliness, to be obtained by whatever means, we must rely upon the simplest that are effectual.

3. We must use a suture for the uterus that is absolutely reliable, that will not come undone in spite of the rhythmical relaxations and contractions of the uterine wall. Some use silk, some silver wire; each has slight advantages in certain details; they are both equally safe in the essential matter if properly secured, and they only rarely give rise to subsequent trouble, a subordinate matter, though one we should be glad to be sure of avoiding—subordinate, indeed, in the opinion of any who have seen the uterus gaping from one end to the other in the *post-mortem* room.

Let the suture be inserted through the whole thickness of the muscular wall, avoiding the decidua, and at a sufficient distance from the edge of the wound to prevent it cutting out.

It may well be asked why there are still failures when every care is taken to carry out these generally recognised principles? The answer seems to me to be clear: It is from the excessive time spent over the operation, and in the elaboration of details which are not essential; the shock and prolonged exposure they entail certainly contribute to the fatal result. Why spend an hour over a complicated method of suturing the uterus, when a far shorter time is sufficient to insert a single row, which is equally, beyond doubt, efficient?

L. H., aged 26, was sent to St. Bartholomew's Hospital by Dr. Hewkley on November 3rd, 1892, at 1.30 A.M., labour having begun the previous afternoon at 3.30 P.M. This was her first pregnancy, she having been married nearly three years; the last menstrual flow, which had always been regular, ceased about the end of January, 1892. One paternal uncle and one sister were deformed from rickets.

Condition on Admission.—The patient, who appeared to be in good health in other respects, was obviously rachitic, with marked lordosis of the pelvis, which presented the following measurements:—Crests, 9½ inches; spines, 9½ inches; conj. ext., 5½ inches; conj. diag., 3 inches. From these data the true conjugate was estimated to be 2½ inches; the antero-posterior diameter of the cavity was found to be 2½ inches. The sacrum was

found to be, as in all cases of severe rickets, convex from above downwards and from side to side, as well as somewhat oblique. The case was one eminently favourable for Caesarean section, some dilatation of the cervix having taken place; the membranes had not ruptured, and no attempts to deliver had been made, Dr. Hewkley having at once recognised the nature of the deformity, and no time had been lost before sending her to the hospital.

Operation.—When laid on the table in the ward theatre at 3.30 A.M. there was no unfavourable symptom beyond the natural fatigue and her anxiety. Chloroform was administered and the bladder emptied. The operation presented no special difficulties. During the incision into the uterus bleeding was easily checked by pressure with two fingers of the left hand laid parallel in the direction of the incision which was then made between them, and extended to a sufficient length with scissors. The child, a healthy, well-developed boy, was lifted out; the placenta was then detached by the finger; the uterus was firmly grasped by Mr. Roberts, and there was little hæmorrhage. The uterus was sutured with silver wire through the whole thickness of the muscular wall, twelve thick sutures in the body, and four thinner in the upper part of the cervix, all placed close together, and secured by twisting, and the ends cut so short, that on passing the finger along the wound no ends of the wire were felt. The oviducts were then ligatured in their middle with fine silk. Owing to the care which had been taken to prevent soiling the peritoneum no irrigation or sponging was necessary, and the abdominal wound was closed with silkworm gut.

After-History.—There is little to add in the further history of the case. Both mother and child made excellent progress, and left the hospital on November 30th. The use of a catheter was necessary for four days. Albumen and pus were present for a few days after, but there was no other evidence of cystitis. The wound was dressed on the seventh day and was found completely healed, and the stitches were removed. The baby was put to the breast on the second day but was weaned on the seventh, there being insufficient milk. On the day before she left the hospital the uterus was found completely involuted but lying above the pelvic brim close to the symphysis, freely movable, and without tenderness.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

TEMPORARY TYPHLOTOMY.

HAVING occasion to operate on a lady, one of those obscure chronic cases so ably discussed by Mr. Harrison Cripps in the *BRITISH MEDICAL JOURNAL* of February 25th, I decided to follow his lucid method. Feeling sure the obstruction (probably of a malignant nature from its gradual progress) lay near the hepatic flexure, on March 1st I operated on the right side, without much difficulty, with the kind help of Drs. Statham and Stode-Smith. The relief from incessant pain and vomiting has been most marked and rapid. She has had no rise of temperature since the operation. Nutrient enemata were discontinued in a few days, and the hypodermic injections of morphine in half doses were merely necessary for discomfort and restlessness.—I am, etc.,

Ambridge.

A. V. LECHE.

CONGENITAL OBLITERATION OF DUODENUM.

I ATTENDED Mrs. W., a remarkably healthy young woman, in her confinement on September 7th, 1892. The baby, a female, was about fourteen days before its time, but there was nothing wrong noticeable about it at the birth. On my visit next morning, I was told that it had vomited a little mucus. On the evening of this day it began to vomit meconium-like matter. On the morning of September 9th I passed a catheter a short distance into the rectum, and found a little thick meconium. I ordered a small quantity of castor oil. As the vomiting did not abate by the evening, I injected water by a catheter which I introduced for 9 inches without difficulty, and a fair amount of meconium followed. On the morning of September 10th, with the assistance of Dr. Duthie, who put the child under chloroform, I injected warm water with a larger tube, but it was expelled as fast as it was pumped in. Blood stain with the vomit was noticed this day for the first time. The child died at midnight, having lived a little over three days. It had taken the breast a little.

Post-Mortem Examination.—Except a portion of the colon, which was somewhat distended, the whole of the intestine was remarkably small and empty. The peritoneum contained dark bloody fluid like that vomited towards the end of life. The stomach was removed separately, and found to be empty, but exhibited a large ragged rupture in the lesser curvature, and its mucous membrane was infiltrated with black blood.

There was a continuation for about an inch beyond the pylorus as a blind pouch. On the other hand, by filling the intestine with water so as to trace the duodenum upwards, it appeared to end in a *cul-de-sac* at the top of the head of the pancreas, but on closer observation a dribble of water was seen to be coming away from a small aperture. This was evidently the cut end of the common bile duct, for a probe passed through it into the intestine by way of a short channel. Nothing was found in the abdominal cavity to account for the obliteration.

The case resembles in several points one which I reported in the *Pathological Transactions* in 1885, the specimen being placed in the Museum at Guy's Hospital. But in that case the obliteration occurred much lower down. That child lived not quite three days, and brought up "greenish-coloured matter." In this recent case the stuff was more of a black colour; in fact, seeing that the interruption was above the entrance of the common bile duct, one cannot see how it could have been meconium at all. It is to be observed, too, that the first vomit was mucous in nature. So one seems forced to the conclusion that the matter vomited was altered exuded blood.

Croydon.

J. M. HOBSON, M.D.

NOTES ON THE CARBOLIC ACID TREATMENT OF TYPHOID FEVER.

FROM 1889 until 1892 I have treated 49 cases of typhoid fever, 39 by the ordinary method and 10 by the carbohc acid pills recommended by Professor Charteris.

In each case the patient was isolated, the maintenance of the recumbent position was insisted on, and milk diet was ordered to be taken at stated intervals. Until my diagnosis of typhoid fever was certain I did not prescribe any medicine, but when I was satisfied the case was one of this fever I prescribed a carbohc acid pill— $2\frac{1}{2}$ grains—to be taken thrice daily, its effects being carefully watched, special attention being directed to the urine. When the temperature was reduced, which usually occurred within three days of their administration, two pills were given, one at night and one in the morning. When the morning and evening temperature became normal only one was administered for two days.

In 4 cases there was a relapse after the pills had been discontinued for several days, and when this occurred one, two, or three pills were given daily, as the temperature and other symptoms demanded. When the patient improved they were gradually discontinued.

After the temperature had been normal for a week the milk diet was supplemented by light food, as white fish, beef tea, chicken soup, arrowroot, and cornflour, and, as the patient's recovery progressed, solids were allowed.

The ordinary method of treatment consists mainly in strengthening the system by appropriate diet and by prescribing for urgent symptoms. The carbohc acid treatment strikes at the root of the fever by the destruction of the micro-organisms which are the cause of the malady. In the cases so treated the fever was cut short, no grave symptoms, as hæmorrhage or perforation, ensued, and the process of recovery was quick and attended by no wasting.

My opinion is that the efficacy of the carbohc acid treatment cannot be questioned, and I am certain, if adopted early, it would prove, in an epidemic of typhoid fever, a preventive as effectual, or more so, than that of vaccination in small-pox.

Galashiels.

H. RODGER SLOAN, M.B., C.M.

IDIOPATHIC INFLAMMATION OF THE TONGUE.

IN the *BRITISH MEDICAL JOURNAL* of May 10th, 1890, I reported a case of this disease. I then wrote: "From the improvement which followed leeching I should not hesitate to incise the tongue in such another case at the beginning, giving iodide (of potassium) to complete the cure."

On February 21st I was asked to see this young woman (M. L., now aged 20 years) as her tongue was again hanging out. I found her condition much the same as reported at the former attack. The swelling had come on suddenly during one night, though the tongue had not felt easy for two weeks. There was some inflammation of the right tonsil, and the