

been indications of this during life, for though well enough to perform his duties as a constable he had from time to time attacks of jaundice which quickly passed off on the administration of a dose of calomel. Perhaps this tendency is unavoidable, for it is impossible for the surgeon to devise so perfect an automatic mechanism for storage and intermittent distribution of bile as the gall-bladder with the cystic duct so curved upon itself that bile does not run out with mere changes of position, but yet is readily expelled at the requisite moment. If I might presume to make a suggestion, it is that when cholecyst-enterostomy is performed as little of the gall-bladder should be left unremoved as possible. I should like to ask whether it or simple cholecystotomy is advisable in the first instance. And if the latter is to be preferred I should like to ask how long should be allowed to elapse before the gall-bladder is united to the intestine, if that should become necessary. In one of my cases the surgeon connected the gall-bladder with the colon; the patient always afterwards suffered from a most troublesome diarrhoea resulting from the entry of bile so low down in the intestinal canal. And it seems far preferable to unite the gall-bladder with the small intestine.

The effect of operation on averting possible subsequent diabetes is not known. Mr. Robson records a case in which only manipulation of the pancreas was practised and though jaundice passed off diabetes eventually came on. The same sequence occurred in Case A (Table I.). Mr. Robson suggests that possibly drainage of the gall-bladder might avert diabetes, but in a case recorded by Moynihan of drainage of the gall-bladder diabetes followed. In this case it should be mentioned that there was polyuria before the operation. At present we know little of any pre-diabetic stage of diabetes and it is not possible to foretell whether a given case of pancreatitis will or will not go on to diabetes. In Cases A and C (Table I.) the urine had repeatedly been found normal for a long time before glycosuria appeared. Of the effect of operation when diabetes is already present we have no information, but I imagine it would be a very unfavourable condition for operation; in Case C (Table I.), in which there was abscess in the pancreas, death from diabetic coma supervened almost immediately after operation.

Upper Brook-street, W.

A PRELIMINARY NOTE ON RINNÉ'S TEST.

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THE difficulties which are met with whilst attempting to separate the various conditions of hardness of hearing and deafness occurring without suppuration in the middle ear are so great that few Englishmen have up to the present had the temerity to write on this subject. This I may exemplify by the fact that in a brochure on Fixation of the Stapes by Dr. Arthur Stern, published in 1903, not a single Englishman was mentioned as having said one word on tuning-fork tests. I use the word *temerity* because it seems to me that the more time and attention one devotes to the difficult, interesting, and intricate problems which continually unfold themselves the more one's knowledge increases, the more frequently one must modify or even change one's views. For this reason I am quite convinced that in a relatively short space of time I may have reason to modify to some extent the views I now hold, although I believe that these views would now generally be acknowledged by those acquainted with the subject to be in the main correct. For my own part, I am quite willing to make mistakes if those mistakes are made through a conscientious representation of my views, if by so doing I can assist in removing the imputation which rests on British aurists of incomplete knowledge in these matters and assist in inducing the younger generation of aurists to see the enormous advantages which are to be obtained by a close study of tuning-fork tests.

To commence with, Weber's test may be left entirely out of consideration. It is quite useless and is often misleading, except in cases of hysteria and malingering. The test which I propose to consider in detail is that which goes by the name of Rinné, and might perhaps be better now termed the proportional test of air to bone conduction, and as such I shall employ it. This proportional test, which up to the present time has been considered as one single test, must be

subdivided into six. When the proportion of bone conduction to air conduction continues to maintain much the same relation to each other as in the normal ear it is termed positive, which will be designated by a capital P in the following table. That is to say, the tuning fork is heard by the air after it has ceased to be heard through the bone. When the contrary condition occurs and the duration of the bone conduction is so great that the fork is no longer heard by the air the term used is negative and is denoted by the letter N. These subdivisions will be as follows, B.C. being used to indicate bone conduction and A.C. air conduction:—

			Result.	Test symbol.
B. C. normal.	...	A. C. reduced.	...	P. ... α
B. C. normal.	...	A. C. absent.	...	N. ... β
B. C. increased.	...	A. C. normal.	...	P. ... γ
B. C. increased.	...	A. C. reduced.	...	N. ... δ
B. C. diminished.	...	A. C. normal.	...	P. ... ϵ
B. C. diminished.	...	A. C. diminished.	...	N. ... ζ

The fourth and sixth admit of slight variations.

Now it will be seen from this list that the individual who seeks for definite information from Rinné's test is likely to fall into numberless errors on account of the complexity of the issues. Another fertile source of error has been produced by the pernicious influence of those aurists who employ and teach the use of Gardiner-Brown's tuning-fork, a most unreliable and unscientific instrument.

With Rinné's test alone we shall find it impossible to further our scientific classification. We must take in conjunction with the proportional test the conversational voice, the lowest whispered voice, the acoumeter, and some corroborative test if necessary, when we wish to demonstrate fixation of the stapes. This, however, need not delay us at the present time. I trust within the course of a few weeks to place before the readers of THE LANCET a more detailed statement of my views and it is in that article that I shall lay myself open to those failures to which I have alluded. But perhaps it is well that I should say at this time that the reasons for using an acoumeter instead of a watch are not so much that the length of estimated distance at which a watch can be heard makes it difficult to employ it as a test for hearing as the fact that the tick of the watch varies as much in pitch as in volume. Thus we might be testing an ear with a watch of higher or lower pitch than the one which had previously been employed, and it must frequently occur that one of those notes is just outside the range of hearing of the individual being tested, whereas the acoumeter, giving forth an unmusical sound, and being mechanically incapable of more than a certain volume, will give the same results in whosoever hands it is and thereby enables men, whosoever they may be situated, to communicate results which can be understood and appreciated by others.

Harley-street, W.

CELLULITIS OF THE SPERMATIC CORD

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WE have recently had an experience of a series of cases the symptoms in which closely resemble those of strangulated hernia, but which, on operative investigation, may best be described under the title at the head of this paper. In two of the cases the patients affirmed that they had suffered for many years from a hernia, which, with the onset of symptoms, apparently became swollen and irreducible. In both instances we were able to demonstrate an empty hernial sac in the centre of the swollen inflamed tissues about to be described.

The patient usually complains of severe pain in the scrotum and around the lower part of the abdomen on the affected side, with constipation and some vomiting, which, however, is not usually a prominent symptom and is generally remarked only at the first onset. The temperature is raised and the general condition may be decidedly bad. On examination the side of the scrotum appears to be filled with a large rounded swelling which runs right into the region of the external ring—in fact, presents all the appearances of an

irreducible inguinal hernia. On palpation, it will be noted that the skin is oedematous and the swelling is hard, but doughy on firm pressure, runs well down into the scrotum, and cannot be reduced. There is no impulse on coughing and the whole mass is dull on percussion. The general impression in such cases is that it is impossible to be sure whether we have to deal with strangulated hernia or not, but in any case immediate operation is the proper treatment. An incision is then made over the lower part of the abdomen and the neck of the scrotum, through a markedly oedematous skin, and several layers of thickened infiltrated oedematous structures are divided but still no gut is found nor even clear fluid within a sac. Finally, after separating off all the different layers, which are firmly glued together by lymph, a thick inflamed rope-like structure is met with which runs distinctly up into the abdomen through the internal ring. On removing this cord between ligatures, the upper one as high up as possible, it is seen that it consists of a much infiltrated spermatic cord, the veins in which are all thrombosed and filled with purulent clot, while the rest of the structure is thickly studded with small abscesses, or rather collections of pus scattered throughout a kind of spongy tissue in its whole length. On the removal of this portion of the cord an elongated hernial sac of thickened inflamed peritoneum, its serous surfaces adherent with lymph, may sometimes be found and ligatured off at the level of the internal ring.

On the completion of the operation a gutter is left, formed by the opening up of the inflamed coverings of the cord and scrotum, and this is packed with gauze and the whole wound is allowed to granulate up from the bottom. The testicles are not affected as a rule, but, as their functions must be quite abolished by the block in the cord, they are usually removed, a procedure which materially simplifies the subsequent course of treatment of the case. After running a modified septic course the patients usually do very well, but I have seen one fatal case in which death was due to septic absorption, owing, I think, to extension of the suppurative process along the retro-peritoneal tissues with a diffuse septic cellulitis in this situation. In other cases there have been symptoms of local peritonitis after the operation, but the intestinal symptoms, especially the constipation and vomiting, have almost immediately improved.

I can offer no suggestion as to the cause of this condition and have been unable to trace any connexion between it and septic foci in other parts of the body. Whether it is primarily a phlebitis with septic thrombosis of the veins of the spermatic cord I cannot say, though why this should occur without some original septic infection is not quite clear. It adds yet another condition to be considered in the differential diagnosis of strangulated hernia, and I do not expect to be thanked by the present-day overworked student for having thus drawn attention to what to me was until recently quite a novelty.

Cairo.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON A CASE OF HYDRONEPHROSIS WITH URETHRAL SEPTUM CAUSING OBSTRUCTION TO URINARY OUTFLOW.

BY G. S. THOMPSON, M.R.C.S. ENG., L.R.C.P. LOND.,
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THE following are some notes in reference to a case of morphological and pathological interest which was under the care of Mr. T. Noy Leah at the Royal Albert Hospital. The history obtained from the parents was not very detailed.

The patient was a boy, aged 14 months. Constipation had been present for three months. Micturition was associated with straining and protrusion of the rectal mucous membrane, whilst at the same time the child also cried and more recently had, in addition, been observed to raise the right leg. The parents stated that latterly "pus" had been noted in the urine. Sleep had also become disturbed, the child being restless and at times indulging in a degree of screaming that suggested the possibility of an intussusception

being present. Nothing amiss in the child's health was apparent until he was nearly one year old. On admission a smooth globular swelling was felt immediately above the pubic region; the temperature and pulse-rate were both somewhat raised. The child was anaesthetised with chloroform and a low abdominal section was performed. On exploring the lower part of the abdomen an elastic, resistant mass was felt in the pubic region, occupying exactly the position of the bladder. Owing to the slight fluctuancy of the mass a needle was inserted but with difficulty; nothing was withdrawn. The tumour was next incised and after cutting through about a quarter of an inch of tissue a small cavity was revealed. This proved to be the bladder cavity, as was shown by meeting a catheter that had been passed per urethram. The passage of the catheter previously to the commencement of the operation not only failed to reduce the size of the swelling but also to allow of any urine being expelled. A small drainage-tube was stitched into the wound and the child was sent back to bed. He died, however, on the next day.

At the post-mortem examination the following interesting condition of things was found. The kidneys were almost of the size of those of a young adult. A longitudinal section showed this to be due to hydronephrosis; the hydronephrotic fluid was turbid, this being caused by the presence of a small quantity of pus. The ureters were markedly dilated, having an appearance which closely mimicked small intestine, not only in the appearance of their walls but by their convoluted state; they were in fact at first mistaken for the small intestine, although their anomalous position for such was remarked. Both kidneys and ureters were distended to an equal degree. The openings of the ureters into the bladder were normal. On cutting open the bladder the marked hypertrophy of its wall was very striking. The mucous membrane presented a shaggy aspect, whilst an ecchymotic condition of the ends of some of these villous-like processes was evident. On excising the urethra and slitting it open, nothing at first was noted therein and the cause for the obstruction was not forthcoming. On subsequent examination, however, a diaphanous membranous septum, lying flush with the wall of the open urethra, was seen. A small opening must have existed in this, but that it was small was shown by the fact of the membrane appearing nearly complete. The site of this septum was about the junction of the urethral orifice of the bladder and the first portion of the urethra. Thus during the normal condition of the parts a diaphragm must have been present across the urethra with a small central aperture. The small catheter which was passed into the urethra may have caused a traumatic enlargement of the aperture of the septum.

The interest of this case lies partly in the preservation of the example of arrested development detailed above. Presumably this septum must be the structure formed by the meeting of the cloacal hypoblast and the invaginating perineal epiblast analogous to the anal and hymeneal membranes. It is strange, however, that the quondam presence of this part is not mentioned positively in the ordinary works on morphology and surgery—at least, one cannot recollect having read of it. Its presence, however, may, or would seem to, be implied, although not actually stated in so many words, by such expressions as congenital urethral obstructions given, amongst other things, as a cause of hydronephrosis. Again, the comparatively late onset of some of the symptoms, assuming that the statements of the parents can be relied on, may possibly be accounted for by renal inadequacy. The genito-urinary organs of this case were sent to the Museum of the Royal College of Surgeons of England.

Devonport.

NOTE ON A CASE OF BLEEDING TELANGIECTASIS.

BY WILLIAM BLIGH, M.D., B.S. LOND

A MAN, aged 32 years, came running into my house in November, 1906, holding a blood-soaked handkerchief upon his left forearm and with his shirt and clothes drenched with arterial blood. Upon removing the handkerchief and mopping away the blood I found a minute naevoid growth from which arterial blood was spurting freely. Closer examination revealed a similar growth upon the back of the same wrist, one on the side of the neck, and two on the forehead. The growths varied in size slightly but the largest was no bigger than the head of a carpet pin. He had been troubled with violent bleeding from more than one of the