safe and lasting cure is gradually to assist Nature in removing the cause of the disease. This is an axiom too often overlooked.

A CASE OF TUBERCULOUS MENINGITIS WITH COMPLETE RECOVERY.

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ALTHOUGH tuberculous meningitis is almost always fatal, most physicians with a wide experience have seen one or two cases which have suggested that recovery is possible. Most of these have been in children, with perhaps only partial subsequent recovery; and only in few cases has the diagnosis been proved bacteriologically.

These notes record the case of an adult, proved bacteriologically to have tuberculous meningitis, who has made a complete recovery. Had one supposed that the patient could get well, fuller clinical and pathological investigations would have been undertaken; but, although only one examination of the cerebro-spinal fluid was made, it is possibly more reliable in that there was no knowledge in the laboratory of the patient's antecedent tuberculous infection.

Clinically the case was never doubtful; the first lumbar puncture was performed in the fourth week of the illness, to relieve symptoms of intracranial pressure; the benefit was considerable, as was also the case after the second and third punctures; and although the fourth puncture, made in the eighth week, did not seem to do any good, and the case was regarded as hopeless, I certainly think that but for the earlier lumbar punctures the patient would have died from increased intracranial pressure.

A woman, aged 37 years, admitted on June 11th, 1919, was discharged quite well on December 14th, 1919.

Past History.—Twelve years ago she was treated by Sir Richard Luce, who removed a tuberculous kidney; has been quite well since.

Present illness began one week before admission; pains in limbs followed by intense headache; when seen in consultation with Dr. G. D. Moon two days before admission she was very irritable and rather excited; neck stiff, severe headache.

On Admission: Temperature 100°, pulse 88, respirations 24; drowsy, but at times very restless; head rather retracted, neck and legs stiff, Kernig's sign present, reflexes normal; no strabismus; lungs and heart normal; urine normal.

Diagnosis—in view of the symptoms and history—was never in doubt. Lumbar puncture was not performed until July 1st; the fluid was under pressure, appeared clear, and contained a few lymphocytes; tubercle bacilli were found.

Course.—For thirteen weeks the temperature was of an irregular intermittent or remittent type, usually reaching 102° or 103° in the evening; the pulse was irregular, but usually below 100, until the ninth or tenth week, by which time there was an extreme degree of prostration; the general condition varied between coma and delirium, with signs of distress and headache. In the twelfth and thirteenth weeks the temperature was not so high, and from the fourteenth onwards it was normal or subnormal, and she made a slow but steady convalescence. She was taking full diet in the nineteenth week. On her discharge in the twenty-eighth week, after having gained 18 lb. in eight weeks, she was perfectly well in every way. Her mental condition was normal, and there was no loss of memory, nor headache; the eyes were quite normal and the limbs were strong, with no rigidity nor increase of reflexes. Three months after discharge she returned to her household duties, looking and feeling quite well.

Lumbar puncture was not performed until the fourth week from the onset; it seemed to relieve the symptoms of intracranial pressure, and was repeated in the fifth, sixth, and eighth weeks (four times in all), but there was little relief if any after the last time, and the case was regarded as hopeless. On one day in each of the tenth, eleventh, and twelfth weeks morphine was administered to relieve noisy delirium.

Specific therapy in tuberculosis is not very satisfactory at present, but most infected persons have good natural powers of recovery. Possibly repeated lumbar puncture is worthy of routine trial in cases of tuberculous meningitis; by the opportune relief of intracranial pressure an odd case or two may "get its chance."

G. BOUCHÉ (*Le Scalpel*, March 6th, 1920) records two typical cases of lethal encephalitis which occurred at Andorlecht and Lens (Hainault) respectively. Two other cases had recently been recorded to the Medico-Chirurgical Society of Brabant and others had been observed in the neighbourhood of Bruges.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

NOTES OF TWO CASES OF HORSESHOE KIDNEY.

THE following two cases of horseshoe kidney were both discovered in the course of operations for renal calculi. In neither of them did the symptoms nor the examination of the patients give any indication of the presence of the abnormality. The condition itself, of course, does not usually give rise to any definite symptoms, and it is the exception for it to be diagnosed previous to operation or until a *post-mortem* examination is made, although in recent years a certain number of the more marked cases with abnormality of the pelvis or ureter have been diagnosed by the use of the cystoscope and pyelography. The frequency of its occurrence has been variously estimated: Morris,¹ from *post-mortem* examinations, places it at 1 in 1,000, but Thompson² puts it as high as 1 in 300. There is, however, a marked tendency for these kidneys to be the seat of pathological changes, so that the possibility of encountering it at operations on the kidney is probably higher than these statistics would indicate.

CASE I.

A woman, aged 33, gave a history of attacks of pain in the left lumbar region for two years. They came on suddenly, sometimes with vomiting and with pain radiating towards the groin. No definite tumour could be felt in the left renal area, but there was tenderness and some rigidity of the muscles. The urine contained a small amount of pus. An x-ray photograph showed the shadow of a large calculus in the left kidney.

Cystoscopic Examination.—The bladder was healthy and the ureters normally situated. The right ureter was normal, and urine could be seen coming from it; the left was somewhat swollen and congested, and no urine was seen coming, although it was seen to contract. Indigo carmine was injected into the buttock, and was seen coming freely from the right ureter in twenty minutes, but none came from the left even at the end of forty minutes. Catheterization of the ureters confirmed this, normal urine being obtained from the right and nothing from the left.

Operation.—The left kidney was exposed by a lumbar incision. It was found lying rather lower than usual. There was a large stone in the pelvis, and marked atrophy of the kidney substance. The lower pole could not be brought up, and on further investigation it was found to be attached by a thick band of tissue to the lower pole of the right kidney. The right kidney lay partially across the middle line and its lower pole, which appeared normal in shape, could be distinctly seen. The connecting tissue was divided, and the left kidney removed. The patient made an uneventful recovery.

Specimen.—The kidney consisted of thinned and atrophied renal tissue round the pelvis, which was contracted on a stone the size of a bantam's egg. The connecting isthmus was composed of fibrous tissue.

CASE II.

A man, aged 29, gave a history of attacks of severe pain in the left renal region for about a year. The attacks were occasionally followed by slight haematuria. In the intervals he was perfectly well. Nothing abnormal was detected in the renal region. The urine was normal. An x-ray photograph showed a small shadow in the left renal area.

Cystoscopic Examination.—The bladder was healthy, and both ureters were normal and in the usual position. Indigo carmine was injected, and appeared freely at both ureters in twenty minutes.

Operation.—The kidney was exposed by a lumbar incision. It could only be partially raised up with some difficulty. The pelvis was small, and was situated on the anterior aspect, and behind it there was a mass of kidney substance about 2 in. broad extending across to the right side in front of the great vessels. The renal vessels entered the kidney from above and in front of this tissue. A small stone was found in the pelvis, and was removed by nephrolithotomy. When seen a year later the patient was perfectly well and had no pain or discomfort.

These two cases illustrate two of the varieties of horseshoe kidney: the first, where the lower poles are united either by fibrous tissue or by actual renal tissue, is probably the commoner; the second is not so common, as here the connecting renal tissue passed from the posterior part of the left kidney, and both poles were distinct and unattached. The fact that this second case was well and able to do manual work a year later is of interest in view

¹ Morris: *Surgical Diseases of the Kidney and Ureter*.

² Thompson: *Annals of Surgery*, September, 1911.