woman not a fool accept such a baby? If the woman is unable to understand the dangers, then to induce her to take it is to take a mean advantage of her ignorance. If a contract is signed with the nurse and the word "syphilis" incorporated in it without its significance being effectually explained, then it is no more than a despicable trick to entrap the poor woman and to release the city from the dangers of a suit. Mrs. M. says that, had the dangers been intimated to her, not for the world would she have taken the tainted baby. Mr. M. is even more emphatic.

If the truth is told to these wet-nurses there will be no wet-nursing of foundlings.

A VIOLATION OF THE GOLDEN RULE.

If a man saw my wife and daughter in danger of acquiring syphilis and gave no warning, I would regard him as inhuman. If a man knowingly put my wife and daughter in danger of syphilis and gave no warning and they acquired it, I would consider a bullet too good for him. The Board of Supervisors of City Charities put Mr. M.'s wife and daughter in danger of acquiring syphilis without warning and they acquired it. Not a member of the board would care or dare to put a member of his own family or social circle or acquaintanceship in danger of acquiring syphilis for the sake of enabling the city to raise more foundlings.

Because these women are poor and live humbly, the board seems to consider (by what right I know not) that they are in a class with rabbits and guinea-pigs to be inoculated with disease, if necessary, for what it considers the public good. This is a clear violation of the golden rule and is a class distinction which may go in Europe, but which, I believe, will not go in this country when properly brought to public notice.

I have asked many physicians, several lawyers and ministers of the gospel if they would allow themselves or their families to be endangered by syphilis for the sake of allowing the city to raise a few bastard children. I have always received an emphatic "No." I ask my brother physicians here and now the same question as regards themselves and their families.

THE PHYSICIAN'S DUTY TO PROTECT THE NURSE.

It has been said that these nurses when they enter the city employ are on the same footing as firemen, policemen and street cleaners, who are all subject to risks connected with their duties. This is, of course, a very superficial view of the case, for the dangers to which these employes are subjected are obvious and can be comprehended by a child. The insidious dangers of syphilis can only be comprehended by one who has had a medical training. When 40 cents a day is held before the eyes of a woman of limited means, limited education and limited intelligence, she is thereby absolutely blinded to any insidious dangers. Let us, who can see, protect her.

THE PRACTICE IS A PERNICIOUS ONE AND SHOULD BE ABOLISHED.

This practice is fraught with danger to innocent people; it can only exist by the practice of cruel deceit and by making a class distinction that ought not to be countenanced in the United States. Better, in my opinion, that every city foundling should die than that the health and happiness of one innocent woman should be sacrificed. Our city has heretofore apparently not regarded the lives of foundlings as of great importance, for it has

never paid institutions more than 20 cents a day for their housing, feeding, nursing and medical care. But now, forsooth, they are regarded as of such value that women must be syphilized in order to raise them. This new standard of value seems to me sentimental and unreal. Common sense does not accord these waifs such a right to life.

THE WAY OUT.

But need these babies all die, if wet-nursing is abandoned? In the past fifteen or twenty years we have seen the evolution of a trinity of useful agencies that may be combined for the benefit of these little waifs, pediatricists who make infant feeding a specialty, trained nurses and milk laboratories. When these agencies are utilized to their limit (which as yet has not been done), then many foundlings will be raised. If babies yet die, who will cast on the city authorities the slightest blame?

THE DISCUSSION ON THE PAPERS OF DRs. DENNY AND WATSON COMMENCES ON PAGE 1849.

A SERIES OF INTERESTING CASES OF SURGICAL CONDITIONS OF THE KIDNEY.

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CHICAGO.

CASE I.—RENAL SARCOMA IN A CHILD.

History.—A child, a year and a half old, was brought to me with a history of hematuria of four weeks' standing, and with a "lump" in the right side. The tumor had been discovered accidentally only a few weeks before the hematuria began; it was, therefore, impossible to determine when the growth had first developed. The child had always been fretful and poorly nourished, but had apparently suffered no pain until five or six weeks before I was consulted. There was a history of possible injury to the back some six months before the hematuria was noticed. A blow on the back was produced by the nurse letting the child fall in taking it out of the crib. The child cried a little after the accident, but was soon thereafter apparently none the worse for it. Family history was negative.

Examination.—Examination revealed a smooth, ovoid, moderately hard tumor in the right ileo-lumbar region. The tumor was apparently the size of a small orange and was distinctly retro-colonic. The child was restless under examination, but the tumor was not painful to pressure. The growth was almost, if not quite, immovable, and was apparently solid. Examination of the urine revealed bloody urine. The hematuria, the mother stated, had been constant since its inception. She also stated that the child's emaciation was increasing very rapidly. There was no rise of temperature. So far as could be learned, the child gave no manifestations of pain in passing urine. Micturition was no more frequent than in healthy children. Aside from the presence of blood, the microscope showed no abnormal characters of the urine.

Further History.—A diagnosis of sarcoma of the right kidney was made, and an unfavorable prognosis given, but operation suggested as the only possible chance of relief. Operation was declined. I lost track of the case for several weeks, when the patient was brought to me again, and I was requested to operate. I, however, refused to do so, as the child was in such condition that operation was, in my opinion, absolutely unjustifiable.

Autopsy.—I impressed on the family the advisability of an autopsy on account of the important bearing of the findings on the family history. My argument must have appealed forcibly to the relatives of the child, for when it died, several weeks later (about 3 months from the time the hematuria began), I was permitted to perform an autopsy and verify the diagnosis of renal sarcoma. The tumor had grown to double the size presented at my original examination, and had become

slightly lobulated. As one of the conditions on which the autopsy was granted was that no organs should be removed, I was not able to make any examination of the gross specimen. I was able to take a small portion of the kidney for microscopic examination, however, and was thus able later to verify the diagnosis.

The probabilities are that in this case the tumor had been developing for some little time before hematuria began. Because of its painlessness and the fact that it grew to a considerable size before it made itself evident in the flank it had eluded observation.

A somewhat similar case came under my observation several years ago:

The mother of the child had suffered from an attack of pneumonia just before confinement. The child was improperly fed, the quality of the food being poor and the quantity insufficient for its nourishment. When first seen he was in a marasmic condition from simple inanition. Under proper feeding improvement occurred, but at the age of 3 months the child began to cry incessantly and was evidently suffering considerable pain. Hematuria developed; the abdomen became swelled and tympanitic; the stomach refused to accept nourishment, and in a few days diarrhea supervened, wasting being consequently very rapid.

A few days later the distension of the abdomen disappeared, and careful examination revealed the presence of a flat, lobulated tumor, corresponding to the situation of the left kidney. This occupied about one-half of the abdomen, was moderately movable, and presented the usual physical signs of renal tumor. After a day or two marked and persistent hematuria occurred. A diagnosis of renal cancer was made. The child died within two weeks after the development of marked symptoms, but unfortunately, an autopsy could not be secured.

Alsberg¹ quotes an interesting case of a similar nature:

A girl, aged 5, who had previously been well, suddenly had an attack of hematuria, the source of which could not be discovered. Three months later swelling appeared in the right renal region, which was believed to be due to a malignant growth on account of its rapid development. The swelling was punctured, and the fluid withdrawn was examined microscopically. It showed the microscopic characteristics of renal cancer.

The tumor was extirpated by Bergmann's method, an incision being made on the anterior aspect of the abdomen, the peritoneal cavity being avoided. The immediate results of the operation were sufficiently satisfactory; there was no evidence of shock, and after two months the abdominal wound had completely cicatrized. Eleven months later the child died from a recurrence of the disease in the cicatrix, with extensive metastases in the liver and lungs. The left kidney was entirely healthy.

Alsberg suggests that one should always bear in mind the possibility of the presence of malignant tumor in one or the other kidney when a child suffers from hematuria, the cause of which is obscure. He says further that with regard to surgical intervention it is, of course, essential that a precise diagnosis should be made at the earliest possible moment.

In connection with these cases it should be noted that while blood in the urine, in conjunction with a solid tumor of the abdomen located behind the colon, is generally supposed to be pathognomonic of renal cancer, Roberts has called attention to exceptional cases, in which an enormous cancerous renal enlargement was not attended by hematuria. Blood in the urine does not occur in the beginning in all cases of renal cancer. Both of my cases illustrate this point. Many cases do not develop hematuria at all, although it does develop in considerably more than 50 per cent. of the cases. As a rule, blood occurs in considerable quantity.

CASE II.—PYLONEPHRITIC AND PERINEPHRITIC ABSCESS OF UNKNOWN ORIGIN MISTAKEN FOR APPENDICITIS.

History.—A woman, aged 45, was brought to me with a history of pain and swelling in the right side of the abdomen, attended by chills, daily evening chill, and constant temperature, with evening exacerbations. She had been in this condition for nearly two months. The urine showed only a moderate amount of pus. This, the patient stated, was not constant, the urine sometimes being as clear as she had ever known it. A diagnosis of appendicitis had been made, and operation suggested by her family physician.

Examination.—Physical examination revealed a tumor occupying the right flank, extending to the mesial line of the abdomen. The tumor was tender, immovable, and non-fluctuating. The colon was evidently displaced toward the median line. The tumor was uniformly dull on percussion. The patient stated that she had been troubled greatly with constipation for some weeks. Careful inquiry elicited the fact that more or less pain in the right side of the back radiating down in the direction of the ureter, and associated with frequency of micturition, had existed for some time.

There was a distinct history of a fall with injury to the corresponding side of the back some four months or more previously. The patient and her friends were unable to give the precise date of this injury; they were, therefore, compelled to approximate the time that it occurred. The urine contained a small amount of pus and blood, but was otherwise normal, save with reference to quantity, which was considerably diminished, the amount of excretion being 700 c.c. per diem.

Operation.—A diagnosis of renal or perirenal abscess was made, and immediate exploratory operation advised and consented to. Diagnosis was verified by the operation; the kidney was found extensively disorganized and riddled with abscesses. Surrounding the kidney was a large multilocular abscess extending as far as the middle line of the abdomen and well known to the iliac fossa. The upper part of the kidney was buried in a mass of exudate and adhesions. While the kidney apparently was a useless organ, it was not deemed advisable to remove it by primary nephrectomy. Drainage was, therefore, instituted, and the patient and friends informed that a secondary nephrectomy would probably become necessary.

Six weeks later the patient left for home with but a small sinus remaining. The urine escaped from the wound and the subsequent sinus for several months, but the track finally healed and the patient was apparently as well as she ever was in her life.

Cases like the foregoing illustrate very pertinently the fact that the recuperative power of the kidney is something which is very difficult to estimate at the time of an operation. The kidney, which is apparently a mere shell, will not infrequently be restored to a certain degree of structural integrity and functional capacity following the evacuation of pus. As the quantity of urine increased very rapidly after the operation, I have reason to believe that the remnant of kidney left by the operation resumed its functions. I will admit that complete healing of the wound may have been due to the kidney becoming obsolete; still, the escape of urine from the sinus during the time the latter remained open, and the speedy closure of the sinus, rather argued against this view. It is certain that cases of this kind emphasize the necessity of conservatism and the performance of nephrotomy and drainage rather than a primary nephrectomy. This is in general a good rule to follow in suppurating kidney. It must be acknowledged that, in certain septic cases in which the existence and normal function of the opposite kidney has been established, the constitutional condition may demand primary nephrectomy as the operation which is most likely to yield a favorable result.

It is hardly safe to formulate a hard-and-fast rule in these cases. Possibly the safest ground to assume would

1. *Revue Mensuelle des Maladies de l'Enfance*, June, 1888.

be that nephrotomy rather than nephrectomy should be performed unless there are special indications for nephrectomy in a given case. The question, after all, must be decided on the merits of the individual case.

CASE III.—HEMATURIA IN INCIPIENT MALIGNANT DISEASE OF THE KIDNEY.

History.—A woman, aged 40, was brought to me with a history of hematuria of six months' standing, associated with paroxysmal pain in the left lumbar region, reflected along the course of the ureter. The hemorrhage was not constant, nor was it always synchronous with pain in the region of the kidney. During the attacks of what were evidently renal colic, ureteral casts were expelled on several occasions, their expulsion being followed by immediate relief. The amount of blood in the urine varied from a slight tinge to, as the patient expressed it, "almost pure blood." It is unnecessary to call attention to the tendency to exaggeration on the part of the patient as to the quantity of blood contained in the urine in hematuria.

Examination.—Cystoscopic examination during a moderately severe attack of hematuria and pain showed that the blood was coming entirely from the left ureter. The kidney was in its normal position, and was tender on pressure. The pressure sometimes produced pain similar to the colicky attacks which the patient experienced. The *x*-ray was negative; but the symptoms persisting, an exploratory incision for a probable small renal calculus was advised.

Operation.—At the operation I split the kidney freely, and after careful palpation and inspection was unable to find any trace of calculus. The kidney was larger than normal and intensely congested. There was no macroscopic evidences of neoplasm present. Patient was temporarily relieved of pain and hematuria.

Postoperative History.—When heard from several weeks after her return home, she expressed herself as delighted with the result. Some three months later I heard that the hemorrhage had returned, but without a recurrence of the pain. I subsequently lost track of the case, and it eventually fell into the hands of one of my surgical friends, who operated, and found sarcoma of the kidney which I had incised.

This is the second case of the kind that has come under my observation, the first having subsequently fallen into the hands of my friend, Dr. Theodore A. McGraw, who also removed a sarcoma of the kidney on which I had operated by simple nephrotomy. These cases are important as bearing on the pre-malignant stage of sarcoma and carcinoma of the kidney, and raise the question as to whether a nephrectomy would not be justifiable in some cases in which all the symptoms of calculus are present, and yet no calculus is found on exploration of the kidney. It is, of course, necessary to take into consideration the possibility of a circulatory disturbance of one or the other kidney sufficient to produce pain and hematuria without the presence of either calculus or malignant disease. Whether or not vasomotor disturbances may produce such a condition is open to argument.

CASE IV.—TUBERCULOSIS OF THE KIDNEY.

History.—A man, aged 32, strong and healthy-looking, was referred to me for operation for what had been diagnosed as renal calculus. There was an obscure history of an injury in the left renal region, occurring several years before I was consulted. For one year prior to the time of my examination the patient had experienced slight attacks of nephritic colic associated with hematuria. The pain was located on the left side. The attacks occurred at intervals of from 1 to 3 months. There was no rise of temperature, and at the time I first saw the case the urine was perfectly clear. On several occasions during the attacks, ureter-moulded clots were expelled, with sudden cessation of the colicky pain.

Examination.—*X*-ray and cystoscopic examinations proved negative. The urine contained mucus in slight excess, but no

evidences of suppurative inflammation of the kidney or bladder. There was no history of specific infection.

Suspecting the existence of incipient tuberculosis of the kidney, and the microscopic examination of the urine failing to show tubercle bacilli, I suggested an inoculation test for tuberculosis. At the end of five weeks the guinea-pig showed a characteristic nodule at the point of inoculation, with associated nodulation of the lymphatic glands. Microscopic examination of the excised lymph nodes and the induration demonstrated the existence of tuberculosis.

Patient was sent away for a change of climate, but returned six months later with turbid urine and an increase in the frequency of urination. Examination of the urine demonstrated the presence of the bacillus tuberculosis. The cystoscope showed the bladder still healthy. The opposite kidney was apparently doing its work properly, the urine from this side being perfectly clear, as shown not only by the cystoscope but by the segregator, which in this case acted admirably well.

Operation.—Operation was suggested and readily consented to. The kidney, as to cortex, was perfectly normal, but there was a typical tuberculous pyelitis. Numerous cheesy nodules were just beginning to break down. No stone was found. The kidney was removed, patient recovered promptly, and at last reports, 6 months after operation, patient still remained perfectly well.

A very similar case recently came under my observation, in which the guinea-pig test alone enabled me to make a diagnosis. This patient is now in Arizona, at last reports was improving, and I hope will be able to avoid an operation.

CASE V.—RENAL CALCULUS WITH EXTENSIVE DISORGANIZATION OF THE KIDNEY.

Patient.—Man, aged 47, was referred to me, suffering with severe pain in the right ileo-lumbar region, associated with a tumor, which had filled the entire flank almost to the median line of the abdomen.

Examination.—The tumor was dull on percussion, save toward the median line of the abdomen, where the characteristic tympanitic note of displaced colon was obtained. The tumor was extremely tender on pressure. Pain was constant. The patient lay with his right thigh flexed on the abdomen in a manner suggestive of the presence of suppurating appendicitis. Temperature ranged from 101 in the morning to 103½ in the evening. There was a daily chill, followed by a sudden exacerbation of temperature occurring late in the afternoon. Profuse night sweats were complained of. Patient had been in this condition for about three weeks. The urine was heavily loaded with pus and blood. There had been no symptoms referable to the opposite side.

History.—There was a history of a number of attacks of renal colic. The diagnosis of renal calculus had been made about a year before I saw the case, and an operation performed. The kidney was incised and, according to the patient's story, some sort of fluid removed, but no calculus found. The diagnosis of suppuration in and about the kidney, probably secondary to calculus in the pelvis of the kidney, was made by me and an operation suggested and consented to.

Operation.—The usual lumbar incision having been made, the sac of a huge abscess was exposed. On incision of the sac an enormous quantity of fetid, ammoniacal pus escaped. This was apparently mixed with urine. The abscess cavity was found to be composed of numerous loculi, one of which extended forward and inward to about the region of the gall bladder. The lower portion of the abscess sac extended well down into the pelvis. The upper portion of the sac was found to be composed of thinned-out renal cortex, which had apparently returned at several points, at which there was a communication with the secondary cavities formed by the perirenal infection and accumulation of pus. A calculus weighing 5 gm. was found in the pelvis of the kidney, blocking up the ureter (Fig. 1).

The kidney being so thoroughly disorganized, I thought it wise to make the case an exception to the rule and to perform a primary nephrectomy. I, therefore, isolated the sac, so far

as the portion of it exposed by the kidney was concerned, with the intention of forming a pedicle and performing nephrectomy in the ordinary manner. In freeing the sac, much to my consternation, I peeled out the remnants of the entire kidney. I expected a severe hemorrhage, which was likely to prove very annoying on account of the depth at which the renal vessels were situated in the bottom of the huge abscess cavity, and the immediate impossibility of forming a pedicle for ligation. Much to my gratification there was no hemorrhage, the renal blood vessels having been obliterated. I had had this experience in one previous case, and in several on which I operated since.

Recovery in this case was uninterrupted, and the healing of the wound was complete at the end of 5 weeks. The urine cleared up within 26 hours, and has since remained perfectly clear. The patient at this writing is, as he expresses it, as well as he ever was in his life.

CASE VI.—RENAL CALCULUS.

History.—A woman, aged 35, with a history of left renal colic from time to time for a period of 5 years, small stones had passed on several occasions during micturition. The attacks had been associated with moderate hematuria. The last attack had occurred about 2 weeks before the patient consulted me. No stones had been passed since this attack.

Examination.—X-ray examination of this case was negative. The urine showed a considerable number of leucocytes and a few red blood cells, but was otherwise normal in constitution and amount. The patient had had various forms of palliative treatment, and her family physician had suggested an exploratory operation, so that she was ready to submit to any procedure which promised relief.

Operation.—I performed a nephrotomy and found in the pelvis of the left kidney five small calculi (Fig. 2).

Healing was prompt and satisfactory. Patient returned home apparently well, with the usual injunctions as to diet, water drinking and bathing, with a view to the prevention of further calculus formation.

CASE VII.

History.—A woman, aged 40, with a history of severe attacks of renal colic attended by hematuria coming on at varying intervals for a period of 14 years, was taken with a severe attack of what was described as dysentery, about a week before coming under my care. The discharges were frequently pain-

ful and attended by severe tenesmus. The patient as not sure whether there had been any blood in the stools or not.

Course of the Disease.—At the time of my first visit the pain had become localized in the vicinity of the right kidney. There was distinct tenderness in the loin and anteriorly in the flank. The urine contained abundance of both blood and pus. The pain radiated typically along the ureter and was associated with frequent and painful micturition. The quantity of urine was considerably less than normal. The temperature varied from 101 in the morning to 102 in the evening. Patient stated that an x-ray examination had been made and a calculus found. I endeavored through the husband to secure the x-ray picture from the physician who had it in his possession, but was unable to do so, notwithstanding which I felt warranted in making a diagnosis of calculus in the pelvis of the right kidney and a calculous pyelitis. Urinary examination for tubercle bacilli was negative.

Operation was declined, so there was nothing to do but palliate. At the end of about a week the pain had disappeared, although the condition of the urine remained practically the same. The temperature remained uniform, approximating 102 F. I noticed at this time that the patient had a slight cough, and that in blowing the nose or expelling mucus from the throat, a small amount of blood was expelled. This, taken in connection with the suggestive facies aroused my suspicions, and I had a blood examination made, which showed a typical Widal reaction. The diagnosis of typhoid being thereby established, I turned the case over to Dr. William E. Quine for medical treatment. The characteristic rose spots were discoverable a few hours later, and were very plain when Dr. Quine and I first examined the case. The case ran the ordinary course of typhoid, but an unfortunate complication developed in the form of double parotiditis, a condition which proved exceedingly painful and exhausting.

I was asked by Dr. Quine again to take the surgical management of the case, and subsequently operated on first one parotid and then the other, evacuating a small amount of pus and necrotic gland tissue. The operations afforded relief. The patient was apparently convalescing nicely when severe pain recurred in the kidney, with an associated rise of temperature. The urine, meanwhile, had been at no time perfectly clear, although it had improved considerably.

Operation was suggested, but declined. The patient subsequently suffered so severely that it was necessary to administer large doses of opiates, and finally chloroform, in order to give her relief.

Operation.—Operation was finally consented to, but deferred until relatives could arrive from a distance, three or four days of valuable time being thereby lost. The last 48 hours before the operation the patient was compelled to take chloroform very frequently to afford relief from the frightful pain. I finally performed the operation and found the kidney extensively broken down, and the seat of three large abscess cavities connecting with a perinephritic collection of pus. In the pelvis of the kidney the stone showed in Fig. 3 was found.

The patient did not react from the operation, but died of shock, two hours later.

The coincidence of typhoid fever and the establishment of a diagnosis of that disease as an intercurrent condition in the course of severe and continued nephritic colic, followed by renal and perirenal abscesses from stone, form a very unusual and interesting clinical picture.

CASE VIII.

Patient.—A man, aged 40, referred to me for treatment of multiple perineal urinary fistulae, secondary to slight coarctions of the bulbo-membranous region. One on the right side of the urethra had evidently resulted from suppurations of Cowper's gland on that side. There was a moderate amount of pus in the urine, and some slight irritability at the vesical neck, symptoms which were readily accounted for by the condition of the urethra.

Treatment.—Perineal section with excision of the fistulous tracts was recommended, but declined. Treatment by dilation and the instillation of antiseptic solutions was, therefore,

In a recent letter the patient informed me that she has had several slight attacks of renal colic on the opposite side within the past three months, so that it is possible I may again have occasion to explore the pelvis of the right kidney.

adopted. Dilation was carried on with fair results, although from time to time slight chills and febrile reaction followed the treatment. There was occasionally slight febrile reaction in the intervals of dilation. There was an obscure history of pain of a slightly colicky character in the vicinity of the left kidney. Slight recurrences of this occurred during the course of treatment by dilation. Stone in the kidney has been suspected.

The patient being decidedly adverse to any surgical interference, and of a rather nervous temperament, inclined to worry, I resolved not to make any very thorough examination as to the presence of calculus, so long as the patient remained in good condition. One year after coming under my observation the patient developed a large periurethral abscess, which burrowed forward into the scrotum in the median line.

Operation.—I suggested immediate operation, which was consented to. The operation necessarily proved to be a very formidable one. Very extensive dissection was necessary for the removal of the indurated and infiltrated tissues and fistulous tracts.

Patient took the anesthetic well, the irritability of the bladder subsided under subsequent drainage, and the postoperative course was ideal for several weeks, with the exception of the necessity of reopening some of the wound tracts, where the attempt to secure primary union failed. The perineum finally healed almost completely, leaving a very small fistulous opening in the median line, which subsequently closed soundly.

Further History.—During the persistence of this slight fistula, about a month after the operation on the perineum, but while the patient was still in bed, he developed severe pain in the vicinity of the left kidney, which was soon followed by the appearance of a large quantity of pus in the urine. The urine had cleared up almost completely after the perineal operation. No tumor in the flank was discernible. The temperature rose and there were slight chills. These symptoms followed almost immediately after the introduction of the sound for the purpose of dilation of the urethra, and were at first attributed to urinary fever, the pain originating in the kidney and disappearing very rapidly. A recurrence of the attack in conjunction with the more or less obscure history of trouble referred to the left kidney in times past, induced me to have a skiagraph taken. The skiagraph findings were not clear, but were suggestive of stone in the left kidney. The patient failing to improve there was at no time any swelling perceptible in the flank, but some tenderness on pressure. A cystoscopic examination was made, and the pus found to be issuing from the left ureter, the urine from the right side being perfectly normal. Operation was decided on.

Second Operation.—The patient bore the anesthetic very badly, and I narrowly missed losing him on the table, resuscitation being established with great difficulty. The shock of the operation was by no means an unimportant factor in the patient's collapse, and it was some hours before reaction was established. The kidney was found to be pretty thoroughly disorganized and the seat of three large pus cavities. The fatty capsule was adherent throughout, and had undergone almost complete cicatricial transformation. It was found almost impossible to deliver the kidney, and an incision was made at its border without doing so. After evacuation of the abscesses the kidney was explored with the finger and the stone shown in Fig. 4 found and removed. The patient did well after the operation, and the wound healed promptly, but left a fistula behind which at the end of almost a year still refused to close.

During the postoperative period there were from time to time exacerbations of temperature. Secondary pus pockets and sinuses formed in the vicinity of the original sinus on several occasions.

Third Operation.—It was finally evident that the kidney would have to be removed and I, therefore, performed a nephrectomy, which, on account of the adhesions and the immense amount of cicatricial tissue in which the kidney was embedded, proved very tedious and difficult. Mindful of my previous experience with the anesthetic in this case, I used the scopolamin-morphin method, and succeeded in getting through the tedious and prolonged operation with about half an ounce of

chloroform. As one of the internes remarked, the patient left the table in better condition than when he was placed on it. The postoperative course was well nigh ideal. The patient is perfectly well.

CASE IX.

History.—A woman, aged 32, consulted me regarding typical renal colic on the left side, from which she had suffered for over ten years. The attacks had latterly been growing much worse and were then recurring at intervals of about two weeks. The attacks were attended by marked hematuria, and between attacks the urine constantly contained an amount of blood appreciable macroscopically, with a small quantity of pus.

Examination.—The skiagraph plainly showed a calculus in the pelvis of the left kidney. Segregation of the urine of the opposite kidney showed it to be performing its function normally.

Operation.—Operation was proposed and consented to. The usual operation of nephrolithotomy was performed, and the calculus seen in Fig. 5 removed. There was no suppuration in or about the kidney, the pus in the urine evidently having originated in the calculous pyelitis.

Recovery was uneventful. The urine escaped from the wound for some time, but at the end of five weeks the fistula was soundly healed.

The form of the calculus in this case is interesting as explanatory of the severe pain the patient experienced. It is extremely irregular, its surface presenting numerous spines, which might naturally be expected to produce severe irritation.

CASE X.

History.—A man, aged 35, with a history of recurrent right renal colic of one year's duration. The patient also stated that some six or seven years before, the exact date having escaped him, he had had a slight attack of renal colic, and passed a small calculus from the bladder, which was said to have been of renal origin. The urine had never contained any pus or blood, according to the patient's statement. The microscope showed both in small quantities. The attacks had recently grown more severe, and were recurring at intervals of about four to five weeks. Skiagraphy in this case gave apparently negative results.

Operation.—The patient consented to an exploratory operation, which was accordingly performed. Two small calculi were found in the pelvis of the kidney. One of these only is shown in Figure 6, the other having been lost in some way. Recovery in this case was interrupted, the wound being solidly healed at the end of the third week.

When this case was last heard from, 18 months after opera-

tion, patient had had a recurrence of the nephritic colic, several slight attacks having occurred during the last 2 months. I have not as yet had an opportunity to examine the patient, but presume that calculus has re-formed in the kidney, as the pain is on the same side as the operation.

Clinical Notes

A CONDITION IN A CASE OF TYPHOID FEVER SIMULATING INTESTINAL PERFORATION

PRODUCED BY A MEDICINAL DOSE OF OPIUM.

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The following case was of extreme interest to me because of inability to discover an underlying pathologic cause for severe and unusual symptoms in a fairly mild attack of typhoid fever.

History.—B. M. F., white, male, single, aged 23, who for the past two years has been an attendant in this hospital, most of the time on night duty, came to me on July 31, 1906, and asked for medicine for the relief of a very severe headache. Inquiry brought out the fact that he had not been well for several days. Headache had been constant, and, in addition, there was general muscular discomfort, loss of appetite, uneasy sensations in the upper abdomen, and inability to sleep. At this time the tongue was furred, the temperature was 102, and there was slight acceleration of the pulse rate. He was put to bed, the bowels were opened with small doses of calomel, followed by a saline, and the diet was restricted to milk. The temperature on the following day ranged from 101.2 in the early morning to 103.4 at 6 p. m.; the pulse rate varied from 96 to 106; the respirations were about 22. The heart sounds were normal and no evidence of pulmonary or pleural disease could be discovered by physical examination. There was, perhaps, slight abdominal distension; tenderness and tumors were absent, but there was complaint of constant pain in the epigastric region and in the lumbar muscles.

There were several cases of enteric fever in the institution and this case was regarded as the beginning of such an attack. For several days the temperature range was from about 101 to 103.5, and there was little change in the condition except for the increased severity of the headache and the discomfort in the upper abdomen.

Administration of Opium.—For several days no medicine was given, but the complaint of headache became so constant that Dover's powder, gr. 10, was finally allowed. The powder was given in capsules at 10 p. m., August 5. At that hour the temperature was 102.2, pulse 90, respirations 22. At 12:30 a. m., two and a half hours later, I was hurriedly called to the patient's bedside, and found him in a paroxysm of agonizing pain. Bent almost double, he was tossing from side to side of the bed, and protesting that he could not live unless he obtained relief. His face had lost its flush, and was pale and anxious, and covered with a cold sweat; the pulse was rapid and weak, and the general appearance of the patient suggested great pain. In a few moments, when there was temporary relief, he described his sufferings as an awful colic, more severe, perhaps, in the upper right half of the abdomen. Paroxysms followed each other at about ten-minute intervals, each paroxysm lasting from three to five minutes. Soon after reaching him I administered an eighth of a grain of morphin, hypodermically, but relief did not result. In an hour, however, he was fairly comfortable. At 3 a. m. the temperature had fallen to 98.5; the pulse was 80, small and weak. Three hours later the temperature was 96.8, while the pulse rate was only 76 and the pallor was marked. Early in the morning the patient vomited once or twice.

Examination of Abdomen.—The abdomen was carefully examined, but aside from very slight tenderness in the upper right quadrant, nothing unusual was to be found. The abdominal wall was not rigid; there was no undue distension;

liver dulness was normal; the spleen was barely palpable just below the costal margin, and flank dulness was absent.

Course of Disease.—The patient was comfortable, and during the day there was a gradual rise of temperature to 103 in the afternoon. The pulse improved in quality, the color was better, and the general condition became more hopeful.

Within the next few days the symptoms of typhoid fever became more prominent. The pulse developed a dicrotism and several rose spots were found on the chest and abdomen. The leucocyte count was about 6,500. The urine was dark amber colored, acid, specific gravity 1.020, showed a trace of albumin, no sugar, no casts, no bile pigment, but reacted positively to Ehrlich's test. During this time the patient was free from pain, took a sufficient quantity of milk, and had a bowel movement about every third day. The tub bath was used to reduce the fever.

Second Administration of Opium.—After a few days the patient again began to complain of headache, abdominal and lumbar pains, and could not understand why he should not be taking medicine regularly. I again yielded, against my judgment, to his importunities, and gave 1 gr. of pulverized opium at 10 p. m., August 8. Before three hours had passed I was called to the ward and saw him pass through a series of paroxysms of abdominal pain, almost, if not quite, as severe as those of the first attack. The attack, too, was accompanied by pallor, relaxed skin, cold sweat, weak pulse, and a decline in temperature from 102 at midnight to 97 six hours later. So severe did the suffering seem that one could well believe the patient's statement that unless he obtained relief he would soon be dead. An eighth of a grain of morphin was again given by hypodermic, and the bowels were moved by an enema. Slight vomiting again occurred, and after perhaps two hours the pain had subsided. Careful physical examination was again unable to establish the cause of the trouble. Within two days the temperature was running its usual course; within ten days convalescence was beginning, and recovery from that time was rapid.

Now, what was the cause of these alarming attacks of pain? The condition of the patient when I was called to see him during the first attack might have been explained by the presence of an intestinal perforation, accompanied by hidden hemorrhage, and I feared that this was the origin of the trouble. The rapid improvement in the patient's condition, however, induced me to doubt this tentative diagnosis, and the occurrence within a few days of a similar attack, followed by no grave sequelæ, caused me to abandon absolutely the theory of intestinal perforation.

The family history and the previous history of the patient were not helpful. The father died of enteric fever a few years ago; there are in the family eleven other children in good health. The patient states that a few years ago he had a severe attack of blood poison, resulting from a wound on one of the lower extremities. Two years ago he had gripe. He was never jaundiced, and had never experienced difficulty in urinating.

I had in mind, especially at the time of the second attack, the possibility of gallstones, or kidney stones, but the evidence in favor of these factors was extremely slight. Gallstones were not found in the intestinal dejecta, bile was not present in the urine, the gall bladder apparently was not enlarged and not tender, and jaundice did not occur. There were in the urine no findings to justify the assumption that the urinary tract had been traumatized by a stone.

It is to be noted that in each instance the attack of pain occurred after opium had been taken, and in each instance the first seizure came on about two hours and a half after the drug was given. The patient did not know at the time what the medicine was which he was taking, and he has told me since then that he does not think he ever took opium in any form before.