a number of these cases if it is a secondary infection.

Dr. John Zahorsky, St. Louis, Mo.—You know in girls vaginitis is an extremely common thing, not only the specific types but other forms. We have not felt justified in private practice in catheterizing little girls who have some pus in the urine. So we have added this procedure to our technic: we take some secretion from the vagina. You cannot always tell by looking at it whether it is pus or not. In the severe cases of vaginitis, of course, you can, but there are many mild cases of vaginitis in which there is a good deal of cellular discharge which you cannot easily recognize. We take a pledget of cotton on the tip of an applicator and insert it into the vagina. The secretion is mixed on a slide with a drop of water. If this shows a large number of leucocytes the pus is probably from the vagina. If we find no pus in the vagina or very few pus cells, we are perfectly satisfied to take the evidence of the urine that is passed in the ordinary way.

Dr. W. McKim Marriott, St. Louis, Mo.—I wish to mention one theoretical and two practical points in the treatment of pyelitis. As to the theoretical, it is supposed the reason for giving alkalies is that an alkaline urine is not a good culture medium for the colon bacillus. As a matter of fact, the colon bacillus grows better. The reason, therefore, for giving alkali is not to kill the germ, but to render the urine less irritating to the tissues of the bladder or kidneys.

As to the use of alkali in the treatment of pyelitis, potassium salts was mentioned as a method of choice. Potassium salts are very toxic. The reason they do not usually produce a toxic effect is because they are quickly and readily eliminated. It has been shown that in the presence of nephritis potassium salts do exert that toxic effect. Therefore, these salts should not be given in cases of nephritis. I have seen cases of potassium poisoning in cases of pyelitis. I think it is better to use sodium citrate or bicarbonate. It is just as effective and less dangerous.

In regard to the use of hexamethylenamin or urotropin, the value of this is particularly in those cases where there is only a bacilluria. Hexamethylenamin is of less value when the infection has invaded the tissues. In the earlier stages it is indicated. The volume of urine passed by an infant is very large in proportion to the size of the infant. An infant may pass 25 or 30 ounces of urine a day, or even more. That approaches somewhat the volume of urine of an adult. In order to give enough hexamethylenamin to render the urine antiseptic we must approach the dose given an adult. Doses of one grain are useless in the treatment of pyelitis. We need to give at least five grains three, four or five times a day to an infant. We may get a hematuria, but the bactericidal result would be nil unless we give at least that amount.

Dr. Mitchell (closing).—I realize the difficulty of saying just when a baby has and when it has not pyelitis. Therefore, I call all infections of the urinary tract or pus in the urine pyelitis, and classify them as cases in which we have pus in

the urine secondary to diseases in which we find pus, and those in which we found pus in which we thought pus was accidental. That is as far as we can go now. Regarding the use of hexamethylenamin, I notice Dr. Still, of London, in an article some years ago recommended very large doses, as high as 10 or 12 grains in older children, though he mentioned the point Dr. Marriott spoke of, that it would produce blood in the urine and irritation.

REPORT OF A CASE OF PAPILLOMA OF THE PELVIS OF THE KIDNEY*

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The detailed reports of papilloma of the kidney pelvis are few, which indicates the rarity of the condition. P. E. McCown,¹ of Indianapolis, reported one case last year before the Urologic Section of the American Medical Association and reviewed all the case reports available in the literature at the time his paper was written. There were only ten American and thirty-eight foreign cases, making a total of forty-eight recorded cases.

Since Dr. McCown's paper two cases have been reported by Dr. Wm. C. Quinby² in the *Journal of Urology* and one by Miller and Herbst³ in the *Journal of the American Medical Association*. These, with my case, bring the number reported in detail to date to fifty-two. In addition to these full reports, Braasch says, in discussing Dr. McCown's paper, that The Mayo Clinic has had three cases since the one reported by Judd and in the same discussion, others mention cases seen. The condition is probably of more frequent occurrence than the few reports would suggest but it is still rare. It is important, however, because it is always a potentially malignant condition whether or not so classed microscopically in any given case.

Hematuria is the most constant and usually the earliest symptom. Unfortunately this is painless and often intermittent, both of which tend to make the patient, and perhaps the doctor, procrastinate; and time is the essence of safety. There is but one bilateral case reported.

*Read in Section on Urology, Southern Medical Association, Fifteenth Annual Meeting, Hot Springs, Ark., Nov. 14-17, 1921.

Hence, unilateral hematuria is significant, and unilateral hematuria accompanied by papilloma of the bladder, as stated by Braasch, is so strongly suggestive of papilloma of the kidney pelvis as to be almost diagnostic. Frequent, painful urine sometimes accompanies the hematuria, and renal colic may result from obstruction by the tumor or clots. There was a mild colic in the case reported in this paper, probably due to the location of the tumor at the pelvic outlet. Of course, every diagnostic measure should be used to eliminate tuberculosis, stone, etc., as a cause of symptoms.

The presence of a palpable tumor is necessarily a late finding, making the chance of cure very remote, and a diagnosis sufficiently clear to justify operation should be made before this stage is reached.

Drawing of papilloma of pelvis of kidney. Kidney drawn with outlet above. Two centimeters of ureter were removed beyond tumor attachment, but it does not show in drawing.

The papers of Herbst and Miller, Judd, Quinby, and McCown with the discussion on them develop the important clinical fact that there is a positive tendency for papilloma of the pelvis of the kidney to extend to the ureter and the bladder, which suggests that nephrectomy with ureterectomy is the operation of choice, and all are agreed that recurrences in the bladder should be treated by fulguration.

Judd⁴ states that the tumors in the pelvis are almost always multiple. This is probably often the result of multiplication by extension from an original single tumor. The case reported here was evidently of short duration and there was only one tumor present.

CASE REPORTS

A white woman, a widow, age 72 years, was sent to my office on March 5, 1915, by Dr. E. D. Mitchell, of Memphis, for urologic examination and consultation. She was the mother of two children, and had had no birth injuries. She had had no previous illness of consequence. Six months before she was seen by me she began to pass bloody urine, at first intermittently, but for a month hematuria had been constant with increased frequency and burning pain on voiding. X-ray of both kidneys, ureters, and the bladder had been made by Dr. Mitchell and found negative for stone.

Examination showed a woman fairly vigorous for her age, without special physical findings. The urine was dark brown. Cystoscopic examination showed a normal bladder, which easily retained 250 c. c. of fluid. The urine from the right kidney was very bloody and could be seen coming from the ureter in normal spurts. No. 6 catheters were easily carried to the pelvis on each side. There was a normal flow of normal urine from the left kidney. The specimen from the right kidney was very dark, containing much blood and epithelium. Both kidney specimens failed to produce a growth on ascitic agar or blood serum. The phenolsulphonethalein output from the left kidney was 49 per cent in two hours. No tubercle bacilli could be found in either the kidney or bladder specimens. Pyelograms were not made.

The patient was returned to Dr. Mitchell with a tentative diagnosis of renal tumor, and nephrectomy was advised. This was done by Dr. Mitchell on March 8, 1915. An oblique lumbar incision was made and the kidney lifted into the wound. It was free from adhesions and normal in appearance except that the pelvis was distended by a soft mass. Nephrectomy was done. On opening the kidney, it looked normal except that the pelvis contained several ounces of clotted blood and the tumor shown in the picture was seen at the pelvic outlet. The dilatation of the pelvis was apparently acute.

The pathologic examination of the specimen was made by Dr. H. T. Brooks of the pathological department of the University of Tennessee, and his report is as follows: A single papilloma of the pelvis of the kidney was found measuring 1.5x2 cm., growing from the kidney pelvis from a small pedicle attached near the outlet. The tumor was made up of connective tissue stalks with blood vessels and superimposed layers of epithelial cells. There was no effort at invasion of the mucous membrane or other evidence of malignancy. The diagnosis is benign papilloma of the kidney pelvis. The kidney and pelvis are normal except for the tumor.

The patient made a good operative recovery and there was no more hematuria. She remained well for three and a half years, then began suffering with frequent painful urine. This gradually grew worse until she consulted me again six months later. At that time she was voiding almost every hour, day and night. The urine con-

tained pus. There were no evidences of tumor recurrence or of metastasis. The bladder would retain only about two ounces of fluid and on cystoscopic inspection the mucous membrane had the appearance of a chronic cystitis. There was much trabeculation, and no visible tumors or ulceration. The patient was getting rather feeble though able to come to my office. (She was then 76 years old). She was made more comfortable and the bladder capacity increased by irrigations with boric acid solution and instillations of 4 per cent silvol. She died very suddenly from hemorrhage from the mouth four and a half years after the nephrectomy. This hemorrhage came without warning while she was up and walking about the house. Death resulted in a few minutes. There was no autopsy and no means of determining the source of the fatal hemorrhage.

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REPORT OF A CASE OF CORNU CUTANEUM

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The case herewith presented seems of sufficient interest to warrant its being placed on record. Judging from the statements of such text books as are available it is a rare condition. Also the majority of those reported seem to have been much smaller, though on the other hand a number were much larger.

CASE REPORT

The patient, a Chinese farmer, Hospital No. 22-709, was thirty-eight years old and single.

His father and mother were both dead, cause unknown. He had one brother living and well.

His personal history was unimportant save for the present illness.

He stated that for twenty years he had had a tumor on the left side of his face. This had grown slowly. About one year previous to admission to the hospital, the skin over the center of the tumor became inflamed and broke, with the discharge of a small amount of thin, seropurulent material. From his description this lasted only a few days and was followed by the gradual growth of the tumor which assumed its form when seen. He stated that prior to the breaking of the skin he had noticed no change in the consistency of the tumor, simply that the skin had become inflamed.

On physical examination the man presented nothing of interest except the tumor and horn. He was well nourished, rather above the average in intelligence, and his heart and lungs were normal. There was no enlargement of the cervical glands.

The central portion of the left cheek was occupied by a large tumor mass. Springing from the center of this tumor and with its diameter nearly equal to that of the tumor, was a large horn. The tumor was slightly irregular in outline, nodular, but soft. The skin over the tumor just at the base of the horn was somewhat inflamed, and there was a slight sense of fluctuation. The skin was not infiltrated. Just at the base of the horn the mass measured eight and three-quarters inches in circumference. Measuring over the convex surface, from the cheek at the base of the tumor to the tip of the horn, was six and one-quarter inches. The horn was curved downward, suggesting the action of gravity. The tip and under surface appeared to have been broken off; this, however, the patient denied. The horn was hard, resounding on being tapped with a pencil. It was brown in color and presented a roughened, striated appearance. (The shape, the broken end and the striations show up well in the accompanying photograph.)

Operative Note (day after admission).—Under ether anaesthesia, a circular incision was made well into the healthy skin below the margin showing inflammation. The skin fell away from the tumor practically without dissection. Following the line of cleavage the tumor was lifted out very easily. The skin was undercut, the redundant portions trimmed away at the corners of the wound and the whole closed in a straight line. Drainage was used.

Postoperative Note.—There was a slight separation of the central portion of the wound. This delayed healing for a few days. The patient,