Boston City Hospital.

CLINICAL MEETING, NOV. 15, 1906.

Dr. Henry Jackson in the chair. Dr. L. R. G. Crandon, Secretary. The following cases were shown.

Dr. William P. Bolles reported

OPERATION FOR HYPERTROPHIED PROSTATE.

M. F., night watchman, aged fifty-nine, but seems older; temperate. He had typhoid fever twenty years ago. Hernia ever since childhood which was well retained by a truss. He has had increasing urinary trouble for one or two years; his first attack of complete retention was a year ago. Six months ago he had a second attack, followed by incontinence for a time. A short time ago he had a third attack and had to be catheterized up to the time of operation. He had a slight systolic cardiac murmur. General condition was very good, however. There was a large and evenly hypertrophied prostate, which was shown by rectal examination to be smooth, rounded and not tender. No stricture.

The patient was operated on one week after entrance by the perineal method of enucleation. Syphon drainage was used for the first two or three days through the perineum. The sphincter of the bladder began to functionate within two or three days more. The packing around the drainage was removed the day after operation. The patient had but little pain from the operation, and sat up in five or six days. He wheeled around the ward in a chair in a little more than a week. He began to urinate partly through the penis in a fortnight and did so almost completely within a week after that time. At the end of four weeks the perineal wound had entirely healed and all the urine was voided through the urethra without pain and in full stream about once in three hours with sphincter control perfect. The patient was discharged relieved. He has returned to-night from his home in the North End to show himself.

DISLOCATION OF CERVICAL VERTEBRÆ.

P. D., aged fifty; single; a farmer. The patient was admitted to the hospital on Oct. 26. Eleven days before his admission was thrown from a team, falling over the wheel and striking on his head. He walked unaided into the hospital and his only symptoms were pain and stiffness in the back of his neck. There was no paralysis of any kind. No deformity was found externally, but the digital examination of the pharynx revealed a prominent bulging forward of the bodies of the middle cervical vertebræ.

He has improved slowly but steadily since his admission to the hospital, gaining motion of his head and the pain is gradually diminishing. He is still in bed, but very comfortable and it is probable that he will be up within a few days.

Dr F. S. Watson reported,

TWO CASES OF PROSTATIC HYPERTROPHY IN WHICH THE PROSTATE WAS REMOVED BY TOTAL PERINEAL PROSTATECTOMY.

These two patients represent the beneficial results of total prostatectomy when it is performed in appropriate cases. Both of them were subjects of chronic retention of urine. Both had very large accumulations of urine retained within the bladder because of the inability of the expulsive power of the bladder to overcome the obstacle offered by an enlarged prostate to the outflow of urine.

In the second case we had a factor present which ordinarily constitutes one of, indeed, the greatest objection to the performance of prostatectomy, namely, a urine which suggested that the kidneys were functionally defective. Under these unfortunately very frequent circumstances, uremia is apt to follow the performance of the operation, and when it does, to prove fatal. On this account it is of great importance to ascertain beforehand the functional capability of the kidneys. Personally speaking, I have found the amount of urea present and the specific gravity of the urine very safe indications of the condition of the renal function and ordinarily sufficient to enable me to estimate the dangers of the operation in any given case so far as this, the most serious of all the post-operative dangers, is concerned.

In this particular instance we disregarded the indications furnished by a low specific gravity and a diminished proportion of urea, of an insufficient renal capability, for the reason that it seemed to me probable that they might be due to the temporary polyuria which so commonly follows the withdrawal of the urine from the bladder in cases of retention with large accumulations of urine in the bladder, and the event shows that we were right to have the courage of our convictions, in this case at any rate.

With regard to the method of operating, there is not much to say. There has been a great deal of to-and-fro discussion and an immense amount of literature with regard to the operative technique of the perineal operations of prostatectomy. I have been connected with the study of the operative treatment longer than any one in this country, was the sole and only surgeon for a good many years to be found who advocated prostatectomy and especially perineal prostatectomy, have seen the recent development of the various techniques of the latter procedure, each and every one, and have practised some of the more important and promising of them, as well as the method that I have employed long before any of them were put in the field; I therefore feel a certain right to pronounce with regard to their claimed merits and demerits, and I say this with regard to the surgical technique of the perineal operations: That it makes not the least difference which of them you employ so far as the safety or danger of the operation is concerned. Whichever one is preferred by any individual surgeon and whichever one of them he is most skilled in performing, that is the one he had best adhere to.

There is, however, something to be said as to the character of the results obtained by them. It is this: That those operations which afford the best chance of avoiding injury to the ejaculatory ducts and the floor of the urethra, which is saying one and the same thing, are to be preferred to those which do not aim at doing this. The question of injury to all other parts

of the prostatic urethra than the floor of it is of secondary importance. It has yet to be shown that any serious harm or even inconvenience comes from tearing through the sides of the prostatic urethra, which is what I do personally in every case of perineal prostatectomy in which I follow the method of operation which I have done for the last eighteen years, though in smaller numbers than has been the case with some other surgeons. The operation to which I refer has the advantage of being the most rapid of all the methods. In the cases we are showing you to-night the time taken was much longer than is sometimes the case. In another case done just before these two I removed the prostate in two minutes and without any more risk to the patient than if I had occupied half an hour. The time taken in these cases was respectively seven and fifteen minutes. It will average about six to eight minutes and is often as short as four minutes.

The method consists in enucleating the prostate lobe by lobe or in one mass as may be preferred, with the finger tip aided, when necessary, by snipping especially tough fibrous connections between the surface of the gland and the inner surface of the outer sheath with blunt scissors.

The finger is passed into an ordinary external perineal urethrotomy incision and into the prostatic urethra. When there, one side and later the opposite side of the prostatic urethra is scratched through with the finger nail or incised with a gum lance passed beside the finger, in either case above the urethral floor and consequently above the entrance of the ejaculatory ducts and above their course through the posterior part of the prostate itself. Through these openings in the sides of the prostatic urethra the finger tip bores until it rests upon the surface of the thin capsula vera covering the gland and forming a part of it. The enucleation is then accomplished by working the finger between this membrane and the inner surface of the outer sheath of the prostate. It is essential that this outer sheath should not be wounded, for in it lie the prostatic plexus of veins which are the source of all the bleeding that ever occurs in the course of this operation or any other way of removing the prostate. Hemorrhage need never occur if care is taken to avoid injuring this structure. Personally, I have never had a hemorrhage of the least consequence in any of these operations of which I have up to the present time done 74, 54 of them being perineal prostatectomies.

One point is well illustrated in these two cases, *viz.*, that the membranous urethra with its compressor urethræ muscle is the true sphincter of the bladder, for in the first case we lacerated the vesical outlet and its sphincter quite extensively — a rare thing to have happen in my experience but an occasional accident. This patient might have been expected to have had incontinence of urine on account of the injury done to that part of the bladder, but he retains his water for two hours at a time already and will gain in this respect as time passes. His membranous urethra is healed except for a short time now and then when it reopens. The other patient has not yet had his urethral incision heal, and he cannot as yet control his urination although he had a perfectly uninjured inner or vesical sphincter at the end of the operation.

The perineal operations have been criticised because of what is asserted to be the greater danger of wounding the rectum when performing them than in the suprapubic method. As a matter of fact the rectum need never to be wounded if only the operator will take the precaution to place two fingers, of the hand not engaged in the enucleation, in it and to press upward against the posterior surface of the prostate whenever the enucleating finger presses downward toward the rectum.

With regard to the advantages and disadvantages of the suprapubic and perineal operations, there would be, practically speaking, very little to choose between them were it not for the one persistent fact that at the very best showing the high operation has an operative mortality of 7.6% and an average one of 11.6% while the best of the series of the perineal operations is but 2% to 4% and an average of 6.5%. The operative mortality of both operations is gradually diminishing.

DR. C. F. WITHINGTON reported the following cases:

A CASE OF MULTIPLE SYMMETRICAL EXOSTOSIS.

The patient, an Italian, a man of about thirty-five years of age, entered on account of acute articular rheumatism. During the routine examination an exostosis of the size of a small egg was noted on the inner aspect of each tibia near the head of the bone. Of these he could give no history, save to say that he had had them since he could remember. Further search showed that similar but smaller growths existed at the head of both fibulæ and the outer malleoli seemed rather large. No exostosis could be made out elsewhere. The accompanying radiographs, which I pass about, show, however, a wider distribution of the anomaly. In the first place, they make very clear the condition in the lower legs. The exostoses are shown to be slightly less dense in structure here than the rest of the bone. Their distribution is perfectly symmetrical, and there are eight of them occupying the ends of the four bones.

Though nothing can be made out by palpation elsewhere, these radiographs show a similar condition to exist in the upper extremity. Here the growths are smaller and more like spicules. They are quite symmetrical and are found on the lower end of both radii. On one radius, besides the hard, dense spicules, there is a less dense and more extended growth than on its fellow. Similar sharp spicules are seen toward the upper end of both humeri, corresponding to the insertion of the pectorales majores. From one such process a slender shadow shows in the picture extending nearly to the inner edge of the arm, as if bone structure was being deposited in the muscle towards its insertion, or as if the process were growing out from the humerus into the muscle. It is possible that other parts of the body which have not been radiographed have also similar osteophytes.

We have not been able to learn from the patient anything about this phenomenon, except

that it appears to give him no trouble; nor have we got any history of heredity. I notice some similar cases are described in the *Bulletin et Mémoires de la Société Medicale des hopitaux de Paris*, 1905, no. 24, p. 647. One patient of twelve years old showed an inheritance of the phenomenon in the direct male line, from father and grandfather; it was shared by a brother of the patient, but the collateral lines, from the father's brothers and sisters, were free. Two other cases recorded in the same place, of eighteen and thirty-five years respectively, showed symmetrical exostosis, chiefly epiphyses. There were no signs of rickets, and the cases were not hereditary.

A CASE OF CHRONIC ULCER OF THE STOMACH, UNRELIEVED BY SEVERAL OPERATIONS.

The patient, a single woman, born in Ireland, aged forty, gives a history of occasionally vomiting blood at varying intervals for six years. There was considerable pain, and an occasional dark-colored stool. Three years ago she vomited about a pint of bright red blood, and about five days later entered this hospital. Operation was advised and refused. She was fed for ten days by enema, then by mouth, and was discharged, as far as symptoms went, well. There was a period of twenty months before recurrence. Then there was hematemesis, and after five months, pain. After the latter had lasted three months, there having been no bleeding for eight months, she entered on the surgical side. She was then operated upon and at one sitting there were done a gastro-enterostomy, an entero-enterostomy, a plication and an appendectomy. Two scars were seen on the surface of the stomach, the pylorus was indurated and the stomach dilated.

Eight weeks after this operation, the patient returned with pain and vomiting, and some bleeding. A second operation, of which you see the scar in the median line, was done, some adhesions were broken up and the omentum was sutured to the site of the plication. The lumen of the gastro-enterostomy was then found to be still patent.

She was discharged in five weeks, and enjoyed a period of exemption from trouble of eleven months. She then began to pass blood from the bowels and occasionally to vomit it. After six weeks of this, she again entered on the medical side and was treated in the usual way for four weeks, till she was discharged free of symptoms. Her exemption after this only lasted three weeks, and she is back again with vomiting of food, not blood, and occasional slight hemorrhage from the bowels. She is again doing well under medical treatment.

So far as concerns the time necessary to secure relief, it seems to make little difference whether she has been treated medically or surgically. The intervals of relief happen to have been a little longer following medical than surgical treatment, except in the last case, though it may well be that the relapses on the whole are getting more frequent. The case is one of those unfortunate ones in which neither medicine nor surgery can lay a very flattering unction to its soul. When first under observation here, because of the persistence of downward bleeding, the ulcer was believed to be duodenal, but at the time of the first operation, gastric cicatrices were seen. It is, of course, possible that the present ulcer is more recent than those, and is duodenal. But the early production of pain after taking food and the similarity of the symptoms to the earlier ones make it probable that the ulcer is at or near the old ones. The operation, by relief of gastrectasis, did seemingly help the vomiting, but at present her generally unpromising outlook appears hardly more gloomy under medical regimen than under further surgical treatment.

Dr. F. J. Keany showed the following cases:

ERYTHEMA GANGRENOSUM (A TROPHO-NEUROSIS).

This patient is sixteen years of age and has lived in a rural district until present visit to Boston. This case presented at the Out-Patient Department of the Carney Hospital, and was first seen by Dr. Townsend Thorndike. Subsequently, Dr. Thorndike and I saw the patient at her residence, and advised her entering the hospital. Through the courtesy of Dr. F. H. Williams, on whose service the patient is being treated, we present this case as an interesting and extremely rare dermatosis. As to past history there is nothing to learn beyond her having had scarlet fever, measles and varicella in childhood. There is no specific history.

The present trouble had a sudden onset, the first lesion of the skin appearing on the back of right hand June 16, 1905, and developed in about one-half hour. It is described as a red purplish spot which became hard and later took on the appearance of a blister, and finally sloughed leaving a scar about the size of a silver half dollar. The lesion did not itch, but was painful and of a burning character which lasted until it became indurated.

At varying intervals since, similar lesions have developed on the right forearm and upper arm, right side of neck, right foot, plantar surface, right thigh, right leg, tibial surface, right post-auricular space, and present active lesion is situated in right groin.

These, first erythematous, later gangrenous, patches develop always the same picture and go on to cicatrization leaving scars, some superficial, others fairly deep. The greatest loss of tissue is over the right tibia. The process lasts from four weeks to three months.

Antiseptic and stimulating local treatment has been tried and strychnia internally given. Later, on suggestion of Dr. Bullard, a course of bromides was appealed to, with little, if any, result. Since admission to the City Hospital, radio-therapy under Dr. Williams's care, is promising.

This condition is to be distinguished from erythema induratum scrofulosorum, of Bazin's, erythema nodosum and syphilis. In Professor Kaposi's clinic at Vienna, I have seen a case quite similar demonstrated as hysterical gangrene. The age of the patient, the absence of arthritic conditions and suppuration rule out erythema nodosum. The failure of anti-syphilitic treatment and the history rule out syphilis. The distribution of lesions, all confined to the right side of the body, the period of development and the hysterical elements present, lead to the consideration of a tropho-neurosis.

A CASE OF TYPHOID FEVER DEVELOPING A PURPURIC ERUPTION OF THE SKIN.

On invitation of Dr. J. L. Ames, I examined this case and observed on the abdomen, right forearm and lower limbs, from the knees down on anterior surfaces, a bright red erythematous eruption with no subjective symptoms. I expressed the opinion that it was a toxic erythema. Some six or seven days afterwards, I again saw the case and found the eruption had changed to its present character and is, as you now see, purpuric. On pressure, the surface does not pale, the condition is all intensified. In all probability the hemorrhage has only extended to the corium.

Such drugs as belladonna, bromide, copaiba, iodides, capable of producing similar eruptions, have not been employed here. Very exceptionally a purpura may, as in this case, develop in the course of typhoid, measles, malaria, scarlatina, septicemia and specific fevers. Osler suggests that a toxin may be generated, some alkaloid, which in varying dosage, in different constitutions, may produce either an urticaria, angio-neurotic edema, erythema multiforma or purpura.

DR. J. B. BLAKE showed

A SPECIMEN OF SELF MUTILATION IN A PATIENT SUFFERING FROM ALCOHOLIC INSANITY.

It consisted of the penis and testicles removed in one mass. The physician who accompanied the patient to the hospital brought the specimen in his hands. At entrance the vessels of both spermatic cords were picked up and tied, as was also the dorsal artery of the penis. A catheter was introduced into the bladder. Three days later a plastic operation was done, turning down a flap from the abdomen from either side of the middle line, to close in the large denuded area over the pubes; this area was about the size of the palm of an adult's hand. The urethra was split and stitched to margin of the skin on either side to prevent cicatricial contraction. Convalescence was slow, and the patient was transferred to the Boston Insane Hospital, from which he was discharged to friends after two months. At that time the wound had healed completely, and he had perfect control of his vesical sphincter.

DR. F. B. LUND showed cases as follows:

CASE I. PARTIAL GASTRECTOMY FOR CARCINOMA OF THE STOMACH.

A patient was presented who had been operated upon for carcinoma of the stomach seven months ago. He was sixty-two years of age and in poor general condition, being considerably emaciated, able to take but little nourishment and vomiting frequently, the vomitus occasionally containing blood. A palpable tumor extended across the epigastrium, sickle shaped, corresponding to the greater curvature of the stomach. On opening the abdomen the growth was found to involve the pylorus and about one half of the stomach, so that for its removal it was necessary to include between the clamps about two thirds of the stomach.

The operation was performed according to the method of W. J. Mayo, the clamps, cautery and inverting sutures being used upon the stomach and duodenum. At the upper outer margin of the growth on the lesser curvature the clamps were applied fairly close to the growth. Elsewhere there was a wider margin. Several glands in the mesogastrium were enlarged, and required removal. It was impossible to get the end of the duodenum anywhere near the small pouch of stomach which was left, so that the first loop of the jejunum was brought up and attached to the posterior surface of the pouch of stomach which was left, by a Murphy button, re-enforced by four sutures of linen thread. This method was adopted as the most rapid, owing to the debilitated condition of the patient. Very little shock resulted from the operation, the pulse remained full and regular, and the patient vomited only once after the operation. He began to take liquid food at once and improved from the first, having no drawbacks except a stitch abscess in inner part of the abdominal incision. The button was passed in a fortnight. Since leaving the hospital, the patient, Mr. H., has been well, and has taken a sufficiency of nourishment, although he says his stomach will not hold as much as it formerly would, and he takes one or two extra meals a day to make up for the small amount taken at the regular meals. He has worked about his place all summer, and has gained twenty pounds. There is now no evidence of recurrence, but he is being bothered somewhat by a ventral hernia in the lower part of the incision. He expects to come in within a few weeks and have this defect in the abdominal wall repaired.

CASE II. GASTRO-ENTEROSTOMY WITH ENTERO-ENTEROSTOMY FOR ULCER AT THE PYLORUS, FINALLY REQUIRING DIVISION OF THE ASCENDING LOOP.

J. A. Q., aged forty-three, female, had been treated in the medical wards of the hospital at various periods for several years for gastric ulcer, which recurred soon after leaving off treatment and was characterized by frequent bloody vomiting and great loss of strength.

In November, 1905, in the hope of inducing a healing of the ulcer, a gastro-enterostomy was performed. At operation the pylorus was found to be narrowed, indurated and scarred. A posterior gastro-enterostomy was performed by the long loop procedure, and an entero-enterostomy done, at the same time the ascending loop being narrowed by a continuous infolding suture. (Enterorrhaphy.) About two weeks after the operation alarming symptoms set in, — constant vomiting of bile, severe pain and abdominal distention. The abdomen was again opened and it was found that the line of the enterorrhaphy had become adherent to the abdominal wall to the right of the median line and folded over so as to obstruct the descending loop. It was freed and the suture, which had not absorbed, removed. The patient then recovered, left the hospital and during the winter went out to service, but was in poor condition, suffering from epigastric pain and occasional bilious vomiting. During the summer she was again in the medical ward under treatment. She had recently been serving as waitress at the convalescent home of the hospital, and while there was seized with another attack of pain and bilious vomiting. She re-entered the surgical wards, suffering from pain, muscular spasm and constant vomiting. Three weeks ago she was operated on again, and the ascending loop was divided, the ends inverted and closed by suture. Since this operation she has been perfectly comfortable, has improved in weight, color and general condition, has not vomited, and is about to return to the convalescent home.

CASE III. A CASE OF INTRACAPSULAR FRACTURE OF THE NECK OF THE FEMUR TREATED BY FIXING THE FRAGMENTS WITH A WIRE NAIL.

O. K. G., fifty-six years of age, suffered an intracapsular fracture of the neck of the femur, for which he was treated in this hospital in November,

1904. After leaving the hospital he walked with crutches for a time, and later with the aid of a heavy cane, but has never been able to bear his full weight on his right leg, efforts to do this being accompanied by severe pain, together with a slip or grating sound in the hip. Examination showed eversion of the foot, thickening about the trochanter and neck of the femur, crepitus on rotation, and a distinct slip and crepitus on pushing the leg and hip upward. There was a shortening of three quarters of an inch.

Treatment: A wire nail long enough as shown by measurement of the skeleton to transfix the trochanter, neck and head of the femur and acetabulum, was smoothed and polished. Under ether an anterior incision was carried down to the line of fracture and the ends of the bone curetted. Then a second short incision was made over the outer surface of the great trochanter and the nail driven through the trochanter, neck and head of the femur into the pelvis. The x-ray shows the relation of the nail to the bones. A plaster of Paris spica was then applied over the dressing. The patient has been perfectly comfortable. The nail was removed in five and a half weeks, by an incision under cocaine anesthesia. It was loosely imbedded at that time and was easily drawn out. The patient ten weeks after the operation was sitting up and beginning to bear weight on the injured limb. There is about three quarters of an inch shortening and some eversion, but union is apparently firm. On Nov. 23, examination shows firm union, and he is bearing more weight on the injured limb.

CASE IV. A CASE OF TALMA'S OPERATION FOR SCIRRHOSIS OF THE LIVER.

J. D., an Italian, fifty-five years of age, with a history of chronic alcoholism, had suffered for the past five weeks from swelling of the abdomen and legs. He had worked up to two weeks ago. Examination showed a slight yellowish tinge of the skin, slight enlargement of the capillaries in the skin at the sides of the abdomen, some dilatation of the superficial veins over the lower part of the chest. Marked distention of the abdomen by free fluid, as shown by shifting dullness. Liver dullness could not be accurately made out.

Under ether the abdomen was opened by a median incision above the umbilicus, and the parietal peritoneum found to be reddened and injected. There was marked dilatation of the capillaries. The veins in the omentum were somewhat dilated and tortuous. The liver was greatly contracted and adherent by loose adhesions to the parietal peritoneum over a large part of its surface. The spleen was enlarged, and likewise adherent to the parietal peritoneum. The peritoneum covering the intestines was everywhere injected. A very large amount of fluid was sponged out of the peritoneal cavity, the surface of the liver where not adherent thoroughly rubbed with dry gauze, and the parietal peritoneum in the lumbar and iliac regions rubbed with gauze in order to irritate it and if possible to secure the formation of adhesions. The peritoneum at either margin of the incision was grasped with hooks and everted, and the omentum sewn to its surface over as wide an area as possible with continuous catgut sutures. The abdominal wound was closed in layers. The patient was perfectly comfortable after the operation, which was performed on Nov. 2. Now (Nov. 15) he is considerably distended and will soon require tapping.

This case promises well on account of the evidence shown by the dilated thoracic veins, the dilatation of the subperitoneal veins, and the adhesions of the spleen and liver, that nature was making some progress toward effecting a cure. We expect to have to tap him several times, but hope that the intervals will grow longer and the amounts of fluid removed less.

Dr. John L. Ames reported

A CASE OF POISONING BY NITROBENZOLE.

The patient is a male, forty-seven years of age. While out walking one afternoon he picked up a pint bottle containing a dark colored fluid and which bore the label "sarsaparilla." He carried it home and the next morning took a drink from the bottle. It burned his throat and made him immediately very ill. When brought to the hospital he appeared to be in very bad shape. He was cyanotic, the blue appearance of skin and mucous membranes being very marked. Surface of the body cold. Temperature, 97°; pulse, 130, weak and irregular; respiration, 30. He was semiconscious, and there was marked prostration. The blood was chocolate colored, very thick and viscid. Venesection was done and a pint of thick, tarry blood withdrawn, and a pint of normal salt solution introduced into the vein in its place.

Stimulants and liquids and oxygen were freely given. He responded well to the treatment and after twelve hours began to improve. At the end of two or three days his cyanosis had entirely disappeared and his blood became normal.

Soon after entrance and just before transfusion his blood showed white corpuscles, 36,500; red corpuscles, 5,816,000. Six hours after transfusion, white corpuscles, 17,200; red corpuscles, 4,360,000. Sixteen hours after transfusion, white corpuscles, 15,600.

Poisoning by nitrobenzole is rare, but the symptoms are similar to those of acetanilid poisoning only they are more intense. The condition of the blood is one of metahemoglobinemia. In this case the urine was negative, except for an increase in the urophene.

Dr. H. A. Lothrop reported the following cases:

CASE I. TROPHIC GANGRENE OF LITTLE FINGER.

This patient is a girl about ten years of age. Three weeks before entrance she received an incised wound across the forearm, just below the elbow. The wound was seen shortly by a physician and sutured and healed by first intention. About two and one-half weeks after accident the top of the little finger became discolored and it felt cold and numb. General examination at time of entrance showed that we had to deal with a healthy young girl. There was a recent scar on the forearm below the elbow which crossed the track of the ulnar nerve. The last phalanx of the little finger was ulcerated and the second phalanx was encircled by a bulla. There was numbness of the hand corresponding to the distribution of the ulnar nerve. There was moderate atrophy on the ulnar side of the forearm anteriorly and of the hypothenar eminence. There was no obvious muscular paralysis.

After a few days' stay at the hospital, during which time the condition in the finger was treated, its appearance improved and the gangrene was self-arrested. About one week after entrance a longitudinal incision was made with its center across the scar. The cut ends of the ulnar nerve were readily accessible. There was a moderate bulbous thickening at the lower end of the proximal portion of the nerve. This thickening was excised and the ends of the nerve approximated and held in apposition by fine silk sutures. The wound was closed and the arm put up in a straight splint to avoid tension.

Five weeks after entrance the condition is as follows: The little finger is entirely well. The gangrene became

limited and as a result thereof she has lost the nail of little finger and half of the first phalanx. The muscular atrophy remains as at entrance. The operation wound healed by first intention and there is no discomfort referred to any part of the arm. There is every reason to believe that the function of the ulnar nerve will be re-established eventually.

CASE II. FRACTURE OF SPINAL COLUMN.

This patient, an adult Chinaman, was run into by an automobile, sustaining injury to his back. He was brought to the hospital promptly and examination showed extreme tenderness in the lower dorsal region. At first his injury was supposed to be simply a contusion. Shortly after entrance he began to have sensory and motor symptoms referred to left leg. On the third day he had lost most of the motor power of left leg. The sensation was but little interfered with.

At this time examination of back showed a moderately prominent kyphosis. The diagnosis was obviously a fracture of spinal column at about the eleventh dorsal vertebra. This was further verified by x-ray. For two weeks he was kept on his back on a mattress with no pillows. Fracture slats were passed across under the mattress only at a point corresponding to the kyphosis. At the end of this time all deformity had disappeared and the function of left leg was nearly restored. He was then turned on to his abdomen so as to maintain the corrected position and a plaster of Paris jacket applied extending from hips to shoulders.

Examination six weeks after this plaster was applied shows that the position has remained corrected and there is no apparent deformity. All functions are normal. He is now walking about with his bandage.

DR. L. R. G. CRANDON reported a case of

GENERAL PERITONITIS. OPERATION. RECOVERY.

A BOY of seventeen was admitted after four days' illness; constantly vomiting; pulse, 140; temperature, 103°; abdomen, distended, universally tender and spasmodic, dull in the flanks; tongue, dark and dry,—the complete picture of general peritonitis.

Under ether, a right rectus incision liberated foul-smelling, chicken-broth pus from all parts of the peritoneal cavity. A brief search in the appendix region showed that that was the most probable source of the infection though the appendix was not found. The whole abdominal cavity was washed with twelve quarts of hot salt solution and cigarette gauze drains put through the wound in four directions. The operation took seven minutes.

The patient was discharged healed and well in five weeks.

The noteworthy points in this case are:

First, in the operation no time was wasted in an extended search for the perforated appendix stump or in handling the inflamed intestine.

Second, immense quantities of pus drained out during the first critical days after operation and this important drainage was made possible, I believe, because the patient was kept in the prone position in bed, the wound being then at the bottom of the draining cavity.

DR. DAVID D. SCANNELL reported a

CASE OF URETERAL CALCULUS.

W. H. G., twenty-one, was admitted to the hospital Sept. 30, 1906, with the following history:

Twenty-four hours before, suddenly seized with acute and constant pain in the right lower quadrant of the abdomen. This pain was progressive in intensity and associated with considerable nausea and vomiting. No chills, but moderate fever; bowels had moved regularly, pain not spasmodic and not radiating to scrotum; no blood observed in urine. No previous attack of a similar nature. At the time of admission physical examination was as follows:

Temperature, 101°; pulse, 96; patient did not look sick; tongue, coated; breath, heavy; chest, normal; abdomen, no general distention; marked spasm over whole right abdomen, but most marked in lower half; excessive tenderness over McBurney's point where the involuntary spasm made palpation of deeper parts impossible. The general picture of the patient was strongly suggestive of an acute appendicitis.

Operation: Under ether with the relaxation of spasm, little additional help in palpation could be derived. McBurney incision 1½ inches long; intestines markedly distended; appendix, normal. Exploration to determine the cause of the pain revealed the presence in the right ureter, just above the level of the appendix wound, a hard, fairly sizable stone. This was firmly impacted in the ureter. There was apparently the slightest dilatation of the ureter above this level.

Without enlarging the incision, but stretching to the maximum the abdominal muscles, the general mass of intestines were pushed back and retained with strips. The ureter was grasped, just above the stone, with the thumb and index finger of the left hand and tightly compressed. An incision 1 cm. long was made on the stone, which was with no great difficulty delivered. The calculus was triangular in shape, the base measuring 6 mm. and the sides each 10 mm., the thickness of the cone being about 5 mm. Immediately on delivering the stone the ureter was closed with three very fine silk sutures. Down to this point was placed one sterile gauze strip for possible leakage. The convalescence was normal, the wick being taken out at the end of twenty-four hours, and the wound allowed to close.

DR. GEORGE B. SHATTUCK reported

CEREBRAL TUMOR OF THE RIGHT FRONTAL LOBE.

W. S., a woman, fifty-two years old, and married, entered the Boston City Hospital Nov. 24, 1906.

Her family history showed nothing of importance and she had been well up to about a year before. She then began to show an unusual tendency toward general nervousness and worry. At about the same time her eyesight began to fail. Six months previous to entering the Boston City Hospital she had undergone an operation at the Homeopathic Hospital, in which tubes, ovaries and uterus were removed for fibroid tumor. Four weeks previous to entering the City Hospital she had severe headaches and vomiting after eating. It was also noted that she moved her left arm almost continuously, for which she gave the somewhat unique explanation that she did so "from a sense of loneliness."

On entrance, examination was as follows: She was conscious and rational but her mental processes were slow and her memory defective. The knee jerks were exaggerated and the Babinski phenomenon was present on both sides. The gait was spastic. There was no Kernig or Romberg sign and no disturbance in sensibility to pain. There was also no astereognosis. The speech was slow and slightly indistinct, the pupils were unequal, the right somewhat larger than the left and examination of the fundus showed papillitis in both. There was no edema, and the physical examination was otherwise negative, except that there was a mass the size of an egg in the right iliac fossa.

On the fourteenth day of her residence in the hospital she became unconscious and twitching movements of the left hand and arm developed. The temperature rose, together with the pulse and respiration; there was retraction of the head, and the patient died seventeen days after entrance.

AUTOPSY.

The autopsy, so far as it concerns the head, follows: Scalp is covered by sparse growth of rather short iron gray hair. The layers of scalp are particularly dry and free from congestion. Calvarium is normal. Pacchionian granulations are quite prominent and longitudinal sinus is free from blood. The membranes of brain are apparently normal throughout except that vessels of pia are deeply congested, the venous channels especially being distended with dark blood. There is no subpial edema. On removing brain from skull the portions of cerebellum surrounding medulla show a grooved indentation which is prominent. Consistence of both cerebrum and cerebellum is increased and there is a slight bulging of right cerebral hemisphere in the lateral portions. No focal point of increased consistence can be determined. Vessels at the base are normal. Cerebellum, medulla and cord are normal. The brain is sectioned in layers beginning at the vertex and cutting anteroposteriorly in a horizontal plane. At a point about 2.5 cm. from superior portion of cortex in frontal lobe, the increase in transverse thickness of right half of cerebrum compared with the left is noticeable. At a point 6 cm. from anterior portion of frontal lobe measured along great longitudinal fissure the right lobe of cerebrum is 7 cm. in thickness, the left lobe 5.5 cm. On removing the next layer an oval, fairly firm, encapsulated tumor appears. The long axis of this tumor is in the vertical plane of right cerebral lobe. Tumor is located in white matter of frontal lobe well out toward lateral surface and back toward parietal portion of cerebrum. Transverse diameter of tumor is 4 cm.; anteroposterior diameter 2.5 cm.; vertical diameter 4 cm. Cut surface is made up of two varying kinds of tissue. The inner half, around which the capsule is the thickest, measuring 5 mm., is grayish yellow in color, rubbery in consistence and without evidence of softening or hemorrhage. The outer half, around which capsule is fairly thin, measuring 2 mm., is softer in consistence, grayish in color, mottled with fine hemorrhagic points, and the boundary between it and the capsule is rather indefinitely fixed. A rod driven down through the center of this tumor would appear on inferior surface at the beginning of the fissure of Sylvius opposite the anterior portion of the fourth frontal convolution. The gray matter is apparently not involved at any point. From the center of tumor to median line is 4 cm.; from anterior portion of frontal lobe in median line is 6 cm. The superior surface of tumor is 3.5 cm. below cortex and throughout its extent the tumor is fully 1.5 cm. from lateral portion of cortex. The lateral ventricle on right side is almost obliterated. On left side the lateral ventricle contains a few cubic centimeters of clear fluid. Basal ganglia apparently normal.

Anatomical diagnosis.—Tumor of right frontal lobe of cerebrum. Rapidly growing glioma.

Exact focal diagnosis of tumors of the frontal lobes anterior to the precentral sulcus is always a matter of difficulty. In the foregoing case the diagnosis of intracranial tumor was unquestioned from the symptoms of double optic neuritis, headache and vomiting, together with general mental failure. Until the very end of the disease, however, localizing symptoms were not obtained. The movements of the left arm observed during the first days of her residence in the hospital were of too vague a character to lead to the supposition that they were due to an invasion of the arm area of the motor region. The spasmodic movements observed three days before her death were much more significant, but her condition at that time was such that an operation was unadvisable. In the diagnosis of prefrontal tumors, particularly of the right side, in which speech disturbances do not occur, the most important sign is a failure or disturbance of the higher mental qualities. These the patient showed to some degree, but evidently a definite diagnosis, without symptoms of invasion of the motor area, based on this alone, is at best uncertain, in view of the fact that tumors in other parts of the brain unquestionably produce very marked symptoms of mental defect through general intracranial pressure. The exaggeration of both knee jerks, together with the double Babinski sign, can only be attributed to the generalized pressure which the tumor caused on the motor tracts. Death, when it occurred, was unexpected and in great measure unexplained.

In all cases of brain tumor verified post-mortem the question of operative procedure during life becomes a matter of interest. In this case the subcortical localization of the tumor would have rendered its exact position difficult to ascertain, even after a generous laying bare of the bone surface. In such cases an operation in two stages is frequently useful, as well illustrated by a case reported some years ago by Drs. J. J. Putnam and M. H. Richardson, in which the tumor had extruded as a hernia and was in great part removed to the temporary great relief of the patient.

Medical Progress.

REPORT ON ORTHOPEDIC SURGERY.

BY E. H. BRADFORD, M.D.

LATERAL CURVATURE.

The most important contribution to orthopedic surgery in the past year has been the publication of the wonderfully thorough work of Schulthess,[1] of Zürich, embodying the results of his remarkable work on this deformity. As is well known, the subject of scoliosis has deen one which has been the despair of many orthopedic