Original Communications.

PRÉCIS OF OPERATIONS PERFORMED IN THE WARDS OF THE FIRST SURGEON, MEDICAL COLLEGE HOSPITAL, DURING THE YEAR 1890.

BY BRIGADE-SURGEON K. McLEOD, A.M.,M.D., F.R.C.S.E.,
Professor of Surgery, Calcutta Medical College.

(Concluded from p. 292.)

IX.—INCISIONS—*continued.*

5. *Operation for imperfectly descended testis and congenital hernia.*—Mahomedan male, *æt.* 17. Admitted with a strangulated left inguinal hernia, which was reduced after application of ice. The testicle of that side remained in the canal, corresponding half of scrotum empty. Two days after admission an incision was made in the left groin over the external ring. The testicle was found with an unobliterated processus, which was dissected out, tied at the external ring, divided and reduced. The testis was then brought down into the scrotum and secured there by a catgut loop. The sides of the inguinal canal were laced together by the same material, a counter-opening made in the side of the scrotum, and a drain inserted. The external wound was then stitched, and an antiseptic dressing applied. The wound healed by first intention. The catgut loop was removed on the 11th day, and the testis remained in position. Discharged 17 days after operation.

6*a*. *Laparotomy for injury.*—Hindu male, *æt.* 4. Gored in the stomach by a wild boar, intestines protruding. Admitted in a state of profound shock. The intestines were carefully washed with warm boracic lotion, and returned after the wound had been enlarged. It was then carefully stitched. The child did not rally from the shock, which proved fatal three hours after operation.

6*b*. *Laparotomy for obstruction.*—Mahomedan male, *æt.* 30. Admitted into the 1st Physician's ward for obstruction of the bowels of four days' duration. After 24 hours' treatment (including puncture of the distended intestines), he was transferred for operation. The symptoms pointed to the descending colon as the seat of obstruction. The abdomen was opened in the middle line, and a twist of the sigmoid flexure was found. When this was undone, liquid fæces escaped freely per anum. The abdominal wound was stitched. He continued to pass stools, but the prostration, which existed previous to the operation, became more profound, and he died of exhaustion eight hours after it.

7*a*. *Tenotomy for contracted hamstrings.*—i. Hindu male, *æt.* 45. Admitted with flexed knee-joints, the result of gonorrhœal arthritis. Extension by splints having been tried in vain, the hamstring tendons were divided subcutaneously, and the joints straightened. The punctures healed in a few days. He was provided with crutches, and his ankles were weighted with shot bags, each containing 2 lbs. After 74 days' treatment, he left the hospital with good use of his lower extremities.

ii. Mahomedan male, *æt.* 35. Seventeen months ago his patella was broken, and knee-joint damaged by the tusk of a wild boar. The wound healed in six months, but the fragments of the broken bone remained widely apart, and the joint was fixed at an angle of about 120°, very little motion remaining.

The hamstring tendons which were very tense, were divided subcutaneously, and the joint straightened. The limb continued weak and useless, and wiring of the broken patella was done seven days later with good success (see IV, 2).

7*b*. *Tenotomy for talipes equinus.*—European female, *æt.* 30. Suffered from fever seven years previously which caused contraction of the muscles of the calf. The Tendo Achillis was divided subcutaneously on both sides, and the deformity was completely remedied.

7*c*. *Tenotomy for talipes equino-varus.*—These four cases were in children, two single, and two double. The cases present no feature worthy of note.

8. *Incision for contracted orifice of meatus urinarius.*—i. Mahomedan male child, aged 10 months. The glans penis was congenitally cleft inferiorly, and the urethra opened by a very small orifice, through which urine came in drops, in this cleft. A fine canalicular director was passed, and the orifice slit open, and the edges stitched to maintain patency. Discharged in four days with a wide meatus through which urine came in good stream.

ii. Mahomedan male, *æt.* 12. A precisely similar case. Similarly treated. Discharged in nine days. Result satisfactory.

9. *Internal urethrotomy.*—Hindu male, *æt.* 20. This was a case of stricture, complicated with scrotal fistula, in which gradual dilatation had been practised with good effect. A band crossed the roof of the urethra which impeded the passage of instruments. This was divided by Civiale's urethrotome, and no difficulty was subsequently experienced.

10*a*. *External urethrotomy* (*Cock's operation*).—i. Hindu male, *æt.* 30. Admitted with retention due to stricture of eight months' standing. The bladder had been tapped with a fine trochar above the symphysis. It was found impossible to introduce a catheter. There was a hard swelling of the perinæum, the prepuce was œdematous, and bladder distended. Patient low and anxious. The perinæum was transfixed with a straight bistoury which entered the cavity of an abscess. Through this a Syme's catheter was introduced into the bladder and retained. Incisions were made in the œdematous prepuce. The result of the operation was satisfactory. The urethra was dilated, and kept dilated by occasional passage of instruments. Discharged in 36 days with perinæal wound closed, and able to make water in full stream.

ii. Hindu male, *æt.* 30. Admitted with retention due to stricture and boggy fluctuating swellings in the perinæal and suprapubic regions. Instruments could not be introduced into the bladder. Tongue dry. General condition low. The bladder was reached by Cock's method, and the suprapubic and perinæal swellings freely incised. They emitted very fœtid pus and communicated with each other. Drainage tubes were inserted, and a Syme's catheter tied in. He was relieved by the operation, and did well for two days. He then got high fever, diarrhœa, and hiccup, and died of septic poisoning on the fifth day after operation.

iii. Hindu male, *æt.* 40. Admitted with extravasation of urine caused by perinæal abscess. Penis and scrotum gangrenous. The bladder was reached by Cock's method, and the infiltrated parts freely incised. A Syme's catheter was tied in. The symptoms of septicæmia gradually increased. He became delirious seven days after operation, and died of exhaustion next morning.

10*b*. *External urethrotomy* (*Syme's operation*)—i. Mahomedan male, *æt.* 45. Admitted with stricture and several fistulæ,—perinæal, scrotal and pubic. The urethra was dilated with Lister's sounds, but no improvement took place. The perinæum was laid freely open on a guide, the fistulæ incised, and a Syme's catheter tied in. This was retained for seven days, and a full sized sound was passed every third or fourth day into the bladder. The fistulæ healed, and perinæal wound gradually closed. He left hospital after 128 days' residence, passing urine in full stream per urethram.

ii. European male, *æt.* 40. Admitted with stricture of seven years' standing. This was treated by rapid dilatation by means of Lister's steel sounds. The operation was followed by high fever, which subsided next day; but on the third day the prepuce scrotum and perinæum were found to be swollen, and the latter tender on pressure. Perinæal section was performed on a guide, free incisions made in the swollen parts, and a soft catheter tied in. He continued to suffer from fever. An abscess (? pyæmic) formed suddenly in the right groin on the third day and was opened. On the fifth day sudden and severe bleeding took place from the wound, and he died of exhaustion due to the combined effects of septic fever and secondary hæmorrhage.

iii. Hindu male, *æt.* 26. Admitted with retention of urine and œdematous penis, scrotum and perinæum. About eleven days previously he had applied at the outdoor department for relief of retention. An impacted calculus was then detected and extracted. He was able to pass water freely in the interval. The urethra admitted a No. 7 grooved staff easily, and on this the perinæum was freely divided, and a Syme's catheter introduced into the bladder. Incisions were made in the œdematous parts, and through one of these from between the testes fœtid pus freely welled out. The cavity of this abscess communicated with the urethra. A drainage tube was inserted. His temperature become normal soon after the operation. A large slough came out of the abscess cavity which then collapsed and contracted. The catheters were withdrawn on the seventh day, and a full sized instrument passed every few days. The perinæal wound gradually closed, and he left hospital 37 days after the operation, able to pass water per urethram in full stream.

*** The abscess in this case was no doubt due to extravasation at the site of impaction.

iv. Hindu male, *æt.* 40. Was under treatment for carbuncle of right thigh when an abscess formed in the perinæum causing retention. This was laid open, the strictured urethra divided, a No. 10 catheter passed, and a Syme's catheter tied in and retained for two days. A full sized instrument was occasionally passed, and the man was discharged quite well in 67 days.

v. Mahomedan male, *æt.* 55. Admitted on 15th May with stricture, retention of urine, and fistula at the root of the penis, right side. An instrument could not be passed through the stricture. The urethra was opened in front of the stricture after Wheelhouse's method. The grooved probe was then passed through the stricture, which was divided freely, and a Syme's catheter was introduced and retained for three days. A full sized instrument was subsequently passed every few days, and the perinæal wound allowed to close. On the 20th of June, an abscess formed at the root of the penis, and burst, the fistula at this site being then re-established. On the 24th perinæal section was again performed. The fistula closed on the four day. A full sized instrument was passed every fourth day, and he was discharged well on the 23rd July.

vi. Hindu male, *æt.* 40. Admitted with stricture and penile scrotal and perinæal fistulæ. The stricture was gradually dilated, but the

fistulæ persisting, perinæal section was performed. He was detained in hospital for 146 days. His spleen was large, and he suffered occasionally from malarious fever. Eventually all the fistulæ closed with exception of the penile fistula. He was able to make water in full stream per urethram when he left hospital.

vii. Hindu male, *æt.* 46. This was a case of litholapaxy, in which suppression of urine followed the operation under peculiar circumstances (*vide* VIII, 1, vi). The perinæum was opened on a guide, under the impression that the case was one of retention due to mechanical obstruction by blood clots.

10*c*. *External urethrotomy* (*Wheelhouse's operation*).—i. Hindu male, *æt.* 30. Admitted with stricture, which was in process of gradual dilatation, when he absconded. He returned with aggravated symptoms, and intermittent dilatation was again resorted to, but without satisfactory relief. The urethra was opened in front of the stricture, which was entered and divided on Wheelhouse's director-probe. The bladder was thus easily reached. A full-sized instrument was passed occasionally, and patient absconded a second time before the cure was complete 23 days after operation.

ii. Mahomedan male, *æt.* 50. Fell on his perinæum 28 years ago, injuring his urethra. This injury resulted in stricture, which was dilated 16 years ago by Dr. Lawrie, and recurring was again dilated three years ago by Dr. McLeod. On this occasion he came with retention, and as a catheter could not be introduced, the stricture was divided by Wheelhouse's method, and a full-sized catheter introduced. Care was taken to keep the urethra fully dilated, and he was discharged well in 22 days. He has since then come to have a bougie passed occasionally.

iii. Hindu male, *æt.* 30. Admitted with stricture and ten fistulous openings—perinæal, scrotal, penile and pubic. The stricture was tight and tortuous, and admitted with difficulty the smallest probe pointed bougie. No urine came through the urethra. As the case was not a promising one for gradual dilatation, Wheelhouse's operation was performed, and a Syme's catheter tied in. This was removed on the seventh day, and a full-sized instrument was subsequently passed every fourth day. The fistulæ had closed with exception of two, one pubic and one penile, and he was doing well, when, on the 44th day, he was attacked with dysentery which proved intractable. He died of wasting and exhaustion 56 days after operation.

iv. Hindu male, *æt.* 40. Admitted with very tight stricture and eight perinæal fistulæ, Wheelhouse's operation was performed. A full-sized instrument introduced per urethram, and Syme's catheter tied in. This was removed on the third day, and a full-sized instrument subsequently passed at intervals. He left hospital in 69 days with the fistulæ and perinæal wound closed, and able to make water in good stream.

*** The three operations above illustrated have each their separate sphere and are by no means interchangeable. Syme's is applicable to an obstinate or recurrent or very callous or resilient stricture through which a guide can be passed into the bladder. Wheelhouse's method is useful in the case of a very tight or tortuous stricture through which an instrument fails to pass or when false passages exist, and there is a doubt whether the instrument fairly traverses the urethra or reaches the bladder. Under these circumstances the plan of opening the urethra in front of the stricture and deliberately seeing, entering and dividing it is satisfactory, and if patiently and cautiously carried out always successful.

Cock's transfixion of the perinæum in front of the rectum is the only resort in cases when by injury, destructive disease or reckless instrumentation the urethra has been lacerated or destroyed, an instrument cannot be passed, retention is urgent and extravasation imminent or in actual existence. The cases above related were all of a very aggravated type, and are very common in India as a result of neglect or mismanagement.

11. *Incision for imperforate anus.*—Hindu female child, six months' old. Anus absolutely imperforate, passes fæces through vagina. An incision was made in front of the tip of the coccyx. A director was passed through the recto-vaginal fistula and the rectal cloaca pushed into the wound. The gut was then incised, pulled down, and its edges stitched to the edges of the skin wound. Fæces came at once through the opening. The stitches were removed on the fourth day. Stools were passed without difficulty through the new anal opening, and none came per vaginam. The child was not brought back after that date.

12. *Incision for stricture of anus.*—Hindu male, *æt.* 24. Six months previously he applied some caustic to his piles which caused them to slough off. The process of cicatrization reduced the orifice to the size of a crow-quill. This was enlarged by antero-posterior incision in front and behind, and the edges of the cut were stitched together. About 3lbs. of fæces were passed at once. The edges of the wound healed as stitched, and an excellent anal opening resulted. He remained in hospital 45 days.

13. *Incision for stricture of rectum.*—i. European female, *æt.* 23. Stricture of syphilitic origin, complicated with recto-vaginal fistula. An incision was made posteriorly, and the gut kept open subsequently by bougies.

ii. Hindu female, *æt.* 20. Tight stricture in lower third of rectum with two internal piles. The piles were removed by clamp and cautery,

and the stricture incised posteriorly. Bougies were subsequently passed. Result satisfactory. Detained 57 days.

14. *Incision for recto-vaginal fistula.*—European female, *æt.* 23. History of syphilis and stricture of rectum (see 13, i). An abscess formed in left labium about a fortnight before admission which burst, and fæces and flatus were observed subsequently to pass through the aperture. A director was passed through the sinus into the rectum, and cut out as in an operation for anal fistula. The wound healed by granulation in 53 days.

15. *Scrotal abscesses.*—Of these six cases, four were suppurated hydroceles, one a suppurated hæmatocele, and one a scrotal abscess. They were all treated by antiseptic incision and drainage, and did well, the cavity of the tunica becoming obliterated in about a month.

16. *Large abscesses.*—It would serve no useful purpose to detail these twenty-five cases, all of which did well under antiseptic management.

17. *Sinuses.*—These were the result of large abscesses untreated or badly treated. They were laid open, freely scraped, rendered aseptic, and treated for granulation, rest of body and part and constitutional treatment being carefully carried out. The result of treatment was satisfactory in all but one case which, getting impatient, absconded.

X.—Reparative Operations.

1. *For ectropion.*—Hindu male, *æt.* 8. This child was admitted with severe burn of face, arm, and forearm. Both lids of right eye were everted by the cicatricial contraction. Two plastic operations were required. Triangular flaps were cut above and below, the lids forming the base. The sides of the wound were approximated by stitches. The tissues were more or less cicatricial, and the result was not satisfactory. On the second occasion flaps were cut and transplanted to support the replaced lids with better success. Assistance was derived from stitching the lids together for a few days.

2. *For closing an opening in the cheek.*—Nepalese female, *æt.* 46. The deficiency in this case was due to the removal of a large lupoid growth from the left cheek. Two operations were found necessary, consisting in the transplantation of flaps from the neighbourhood. On the second occasion the upper and lower lips were freed and moved across to the left. A small gap remaining in the corner of the mouth, a third operation was proposed, but not consented to. There was no return of the lupus when patient left hospital after 111 days' treatment.

3. *For lacerated perinæum.*—Hindu female child, *æt.* 4. This girl had been brutally outraged by having a stick thrust into her vulva. The perinæum was completely and badly lacerated. The edges of the ragged wound were brought together by stitches. These gave way and the wound gaped. The parts were allowed to heal, and the perinæum was then restored by splitting the cicatrix transversely and converting the transverse into an antero-posterior wound after Lawson Tait's method. This proved successful. She remained in hospital 44 days.

4. *For ulcers on bony projections.*—In both cases the bony projection was removed by gouge; the skin freed all round, and its edges approximated by stitches. The result was satisfactory.

XI.—Operations not Classed.

1—2. *For prolapsus of the rectum.*—Hindu male, *æt.* 19. Admitted on 27th January with very aggravated prolapsus or procidentia of the rectum. This commenced eight years ago after an attack of dysentery, and has gradually got worse. The whole of the rectum is everted when he strains at stool, the prolapsed mass attaining the size of a fœtal head, 6 inches long and 12 inches in circumference. It is reduced by hand with difficulty; mucous membrane chronically congested and thickened, covered with sticky mucus. Sphincter enormously dilated, admits the fist easily. On the 1st February the mucous membrane of the prolapsed gut was carefully cleaned and dried, and scored vertically from the sphincter to the fundus in seven places with a hot iron; each burn being about 4 inches long, and as deep as the muscular coat. The prolapsus was reduced, a morphia suppository inserted, and opium administered in full doses. The prolapsus recurred to the full extent on the 11th day; the ulcers caused by the cautery were stretched and bled, and after they healed the condition of the patient was as bad as ever. On the 1st of March the following operation was performed:—The prolapsed gut was thoroughly cleaned and reduced, the left hand following it until its fingers were felt above Poupart's ligament in the left inguinal region. The reduced gut was fixed to the abdominal wall in this region by two steel pins introduced from without inwards, transfixing the gut, guided across its interior by the fingers of the left hand and then passed outwards through gut and abdominal wall. They were placed at a distance of three inches. An incision three inches long was then made along the course of the gut through the abdominal wall till it reached the peritoneum, which was not opened. Two rows of four silk stitches were then passed through the wound, fixing the two outer coats of the intestine to the abdominal wall on each side of the wound, which was finally closed by three transverse stitches, which also held the two outer coats of the gut. This stitching was done by means of a handled needle, and the fingers of the left hand guided its course through the intestinal wall.

The wound was dressed antiseptically, and the patient put on full dose of opium. The needles

were removed on the 2nd. Stitches removed and loosened on the 9th, his rectum being unloaded with a scoop on that day. He had a little fever on the 10th and 11th day, which was relieved by a carminative aperient. On the 12th the rectum was washed out. He passed his first stool spontaneously without prolapse on the 14th. The wound was completely healed on the 17th. He began to walk about on the 24th, and passed stools regularly without protrusion, and was discharged on 12th April. Readmitted 9th June with prolapse of the mucous membrane, which slips out when he strains at stool to the size of a walnut, returning on pressure or resuming the erect posture. Sphincter very loose. A wedge of anal verge including the sphincter and loose rectal mucous membrane was clamped on the right side removed by scissors and cauterized. He recovered rapidly, and was discharged on 2nd August. The sphincter was still loose, and a slight prolapse occurred during stool on left side, disappearing on standing. The gut remained fixed at the site of stitches, and the rectal wall was smooth and tight. He came to show himself in November with slight prolapse of anal verge during stool; but an operation was not considered necessary. In February 1891 he again presented himself, and at his urgent request the clamp and cautery operation was repeated on left side. He appeared again on the 9th of July 1891, and showed a small protrusion of mucous membrane on straining, but it was not considered necessary to operate. He has not turned up again up to the present (October 1891).

*** The foregoing presents a complete narrative of this remarkable case. The operation has been described in fuller detail in this journal and in the *Lancet*. The fixation of the upper part of the rectum to the abdominal wall was satisfactorily and permanently accomplished by the means resorted to, and the procidentia has been undoubtedly cured thereby; but the relaxed state of the sphincter permits of a protrusion of the anal mucous membrane which will probably continue all his life. The lad had a cancellous exostosis of the lower end of the femur successfully removed in April 1891.

Prolapse of rectum cauterised.—Mahomedan male, *æt.* 50. Has been subject to prolapse at stool for five years.

The prolapsed gut was scored longitudinally with a hot iron as in the last case. His bowels were kept confined for three days, and a dose of castor-oil given on the fourth. He left hospital six days after the operation, and has not been heard of since then.

3. *Paracentesis of bladder.*—This was resorted to as a temporary expedient to relieve a distended bladder. The case was subsequently treated successfully by external urethrotomy.

4. *Erasion of lupus.*—These three operations were performed on the same patient, who had a very aggravated lupus of the nose and adjoining part of the cheeks. (Var. exedens). Volkmann's sharp spoon was the instrument employed, and the final result was satisfactory.

5. *Erasion of rodent ulcer of face.*—Mahomedan male, *æt.* 58. Has been suffering for five years. The ulcer was scraped in May 1888 without benefit. The ulcer has destroyed the lids and right side of the face extensively and exposed and eroded the bone. The edges were dissected off, the diseased bone removed by a chisel, and the soft parts thoroughly scraped and mopped with chloride of zinc, 1 in 40. The eye-ball and anterior wall of antrum were removed. The ulcer contracted and seemed to be in process of healing when he insisted on leaving hospital 56 days after the operation. He has not been heard of since then.

6. *Continuous dilatation of stricture.*—The instruments used for this purpose were Lister's steel probe pointed and graduated bougies introduced successively in series.

Three of the cases were complicated with fistulæ.

The result in all cases was satisfactory. The patients were retained for some time after full patency had been reached for the purpose of having a No. 9-12 passed every third day, and a few of them attended occasionally afterwards to have the instrument passed.

General Remarks.

Mortality.—The general death-rate among the operations of 1890, namely, 6·41 per cent. of cases treated to the end, is unprecedentedly favourable, and this result has by no means resulted from any decline in the number of serious operations or in the gravity of the operations themselves, nor was any principle of selection resorted to; nor can the constitution and health of the subjects of operation be said to have undergone any change for the better. The result is entirely due to improved general and wound hygiene, and the absence of those sequelæ of wounds and injuries which used to be embraced in the comprehensive and suggestive term hospitalism.

Causes of death.—An analysis of the causes of mortality confirms this statement; very few of them are fairly attributable to the operation itself; the great majority being due to the conditions preceding operation for which operative treatment was—often too late—resorted to. Under this category come the four herniotomy and four urethrotomy cases, the two trephining cases, the two laparotomy cases, the empyæma, the double amputation and the laryngotomy—15 of the 20. The two deaths which occurred among the 19 operations for radical cure of hernia were due to broncho-pneumonia, and in one of these the patient contributed to the fatal result by removing his dressings and inducing a septic state

of wound. The fatal result in the case of ventral hernia was in no way connected with the operation. The death after litholapaxy resulted from an unfortunate accident.

The only case of fatal tetanus was a septic case, a compound fracture of the radius admitted three days after the accident. Another case of tetanus occurred after herniotomy and open bowel. He was removed by his friends in a moribund state.

The experience of the year supports the statement previously advanced regarding the decline of this disease in the hospital since the introduction of antiseptic treatment.

Antiseptics.—The same system of dressing wounds, which has been described in previous reports, has been employed during the year. Bichloride of mercury gauze has been exclusively used as an outer dressing, and boracic gauze and lint as inner dressings. Equal parts of iodoform and boracic acid have been used for dusting.

A septic wound or sore is now a very exceptional thing in the hospital, and wounds admitted in a septic condition are in most cases rendered aseptic.

EXPERIENCES OF A BEGINNER IN LITHOLAPAXY.

By T. M. SHAH,
Assistant-Surgeon, Junagadh State Hospital.

About three years back I took to litholapaxy. After four or five successful cases I lost three or four patients, and then I gave up the operation and resorted to the old established operation of lithotomy. Though old and of established reputation, lithotomy always entails more or less anxiety after the performance of the operation, especially when done in persons grown up and advanced in years.

Hæmorrhage, pyæmia, peritonitis, cystitis, and kidney disease are lurking enemies which now and then snatch away the life of the patient to the great annoyance of lithotomists. Added to these, the tedious process of recovery, the prolonged stay in hospital, the soaking of bed-clothes with urinary discharges and long confinement in bed, afforded sufficient reasons for inventing a better, cleverer, speedier, less risky method of dealing with this mechanical urinary disease. Lithotrity or the operation for crushing the calculus in bladder is of no recent date, but the credit of bringing the process to perfection is due to the eminent American Surgeon Dr. Bigelow. The operation is known by his name, or is now more commonly designated Litholapaxy.

Dr. Keegan's statistics published in the *Indian Medical Journal*, January and February 1890, afforded me a stimulus to retry the operation of litholapaxy. I began to perform the operation more cautiously and tenaciously, and, I am glad to say, successfully, and now every case of stone in the bladder is got rid off except under exceptional circumstances by litholapaxy.

This time I perform the operation without injecting any fluid into the bladder, and therefore patients do not strain as much as they used to do when the bladder was filled with fluid in my former cases.

The operation takes much time, and a beginner gets nervous when a patient is long under chloroform, sometimes with irregular, rapid, and noisy breathing. A beginner would also become diffident by failure or delay in getting hold of the stone by the lithotrite. In the beginning of this series, therefore, when the stone was small, it was completely crushed; but when at all large, and I feared to prolong the operation, I stopped crushing any longer and terminated the operation by performing median lithotomy and getting rid of all the remaining fragments,—litholapaxy combined with median lithotomy—thus relieving the patient. I could thus see what work the lithotrite had performed and what had remained uncompleted.

I could also judge of the state of the bladder. In a short time I got more confidence and litholapaxy is now the ruling operation for stone in the bladder of old persons, adults, and children, whether male or female. When Michael Angelo lay on his death-bed, he is reported to have said, "I am learning still." His skill was unrivalled; his fame world-wide; he was in extreme old age, and yet he was "learning still." Every one is "learning still." Each patient teaches us something, and our failures are the stern but kindly monitors from whom we learn the most. When Hannibal, the famous general, was asked in his old age, how it was that he always won his battles. He replied, because he was always beaten when young, and so it is. The touch-stone of disaster tries and teaches us all. Each mishap is a step, and the loss of youth is compensated by the skill, the foresight and the command of success which prolonged experience and constant practice alone can give. Experience affords confidence and prepares men to battle against disease with firmness and circumspection.

Cases.—Litholapaxy with Median Operation.

1. Ranchor Naran, male, *æt.* 20 years, suffered from stone symptoms for a year. He was cut for stone by a quack twelve years ago; there is a mark of the operation on the right side of the raphe. Presence of stone ascertained by sounding the bladder.

24*th May* 1890.—Put under chloroform, and stone crushed partly and some *débris* aspirated. Catheter was not suitable to the sucking apparatus. After trying the crushing and aspirating processes for an hour, median operation was performed, and the large fragments were removed,