

THE MANAGEMENT OF LARGE HERNIÆ.

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The interest at present felt by the surgical world in the radical cure of hernia is so great, and so many methods of treatment are being brought forward, that it has occurred to me that the grouping together of a number of examples of the extreme degree to which hernia may attain, and to relate my experience in their management, might not be without interest to the members of the Association.

The very large herniæ appear to have a *raison d'être* in each case; that is, the patient usually suffers from some form of disability which prevents him or her from exercising that control over a hernial tumor which an able-bodied and intelligent person is usually capable of doing. In a large number of cases obesity is a predisposing cause, especially in umbilical herniæ in women. A stout, middle-aged, swag-bellied woman who has borne children is particularly liable to this form of hernia. An examination of the abdominal parietes of such an individual will show a large semi-lunar fold running in a sort of festoon across the abdomen and containing at its centre a depression, marking the umbilicus. The size and weight of this fold of skin and adipose tissue must exert a strong traction upon the cicatricial tissues of the umbilicus, and the abdominal parietes at this spot must, therefore, be disposed to yield to pressure, especially if weakened by the distension of numerous pregnancies. In a laboring and ignorant woman a tumor once developed is not likely to grow any smaller, and soon becomes irreducible. If the intelligence of the patient is at all impaired, the conditions for the development of a large hernia become unusually favorable.

The type of man usually afflicted with a large scrotal hernia is two-fold. Either he is a middle-aged active business man, so engrossed with his work or of so careless a temperament as to have neglected his disease until driven to treatment by fear of permanent disability; or he is an old and feeble individual, or so obese as to be unable to manipulate the parts so as to effect a reduction, or with insufficient intelligence to apply and keep in place a truss.

Finally we have children with congenital hernia, whose position in the social scale is so lowly that the little patient has never been able to receive proper care, and an unusually aggravated form of hernia is the result.

The cases which I shall present to you for your consideration represents fairly well each of these types of this affection. No special plan of treatment has been adopted applicable to them all, but each case has received such treatment as the

special conditions governing it seemed to call for. Most of them have, however, had this in common, that a preliminary treatment was applied in all, consisting of pressure, with rest in the inverted position; that is, with the hips raised and the shoulders lowered. The object of this position is to reverse the conditions under which the gradual formation of the tumors occur; that is, pressure and gravity combine now to return the intestine and omentum to the abdominal cavity, as they had before combined to protrude them through the ring. The so-called inverted position is produced by raising the foot of the bed and so arranging pillows and mattresses as to make the ring the highest point of the abdominal parietes. Pressure can be made by sand or shot bags, or by the rubber band or special apparatus devised for the purpose. Usually, however, the position aided by sand bags so greatly reduces the size of the hernia that it can be reduced readily by taxis under ether. When it was not possible to retain the herniæ by any form of apparatus after considerable trial, the radical cure was then attempted.

Case 1.—Large scrotal hernia, twenty-five years' standing.—H. H. R.,¹ 45 years of age, had developed a small hernia during college life, but as it increased very slowly, had used no truss, nor had at first made any systematic attempt to reduce it. At the time I saw him he was exceedingly stout, his greatest weight reaching 340 pounds. The enormous size of the scrotum, a portrait of which, sketched by the patient himself, giving the exact size, I here show you, measuring 17 inches from the base to its most dependent portion, caused, after active exertion, the development of a troublesome eczema. After a hard week's work he would go to bed on Saturday and give the scrotum a chance to recuperate itself until Monday morning. Unsuccessful attempts at reduction had been made in Paris, London and New York, on at least one occasion under ether. On explaining the method of reduction by pressure to the patient, who was a skilled architect, he entered heartily into the plan and a bed was made of special strength and a frame work built around it by his carpenter, with an apparatus for hoisting the hips or body, as might be desired. The foot of the bed was raised, the scrotum was held vertically in a hard rubber splint made for the purpose, and pressure was exerted by shot and sand bags. A rubber bag that could be inflated rigid externally but flexible internally, and exerting a sort of uterine pressure, was made for this case by the Davidson Rubber Company. By the time this bag was ready for use the tumor had been reduced to one-quarter of its original size. The bag having been fitted over the hernia and held in place by bandages, pressure was exerted by water introduced into it, and, at the end of eight weeks, the hernia was reduced. The opening in

¹ Boston Medical and Surgical Journal, March 18, 1880.

the ring had a length of four finger breadths. The patient was not able to use a spring truss, but the hernia was retained with ease by a buckle and strap apparatus. The patient led a most active life after this, going up and down ladders and traveling great distances without any local trouble. He died about five years later of Bright's disease.

Case 2.—Large scrotal hernia, twenty years' standing.—This patient was about 40 years of age, the proprietor of a large factory, and an active business man. The tumor was about the size of an infant's head of six months and irreducible. It was chiefly omental, the amount of intestinal contents being small. A six weeks' rest in the recumbent position, with the foot of the bed raised and pressure with sand bags and occasional use of the rubber bandage, reduced the tumor so much that only one or two large nodules of omentum remained that could not be forced through the ring. Ether was accordingly given, and by vigorous manipulation the lumps were reduced. A truss fitted by Dr. Green, of Leach & Green, has held the hernia perfectly, and the patient has since, during a period of eighteen months, been actively engaged in business.

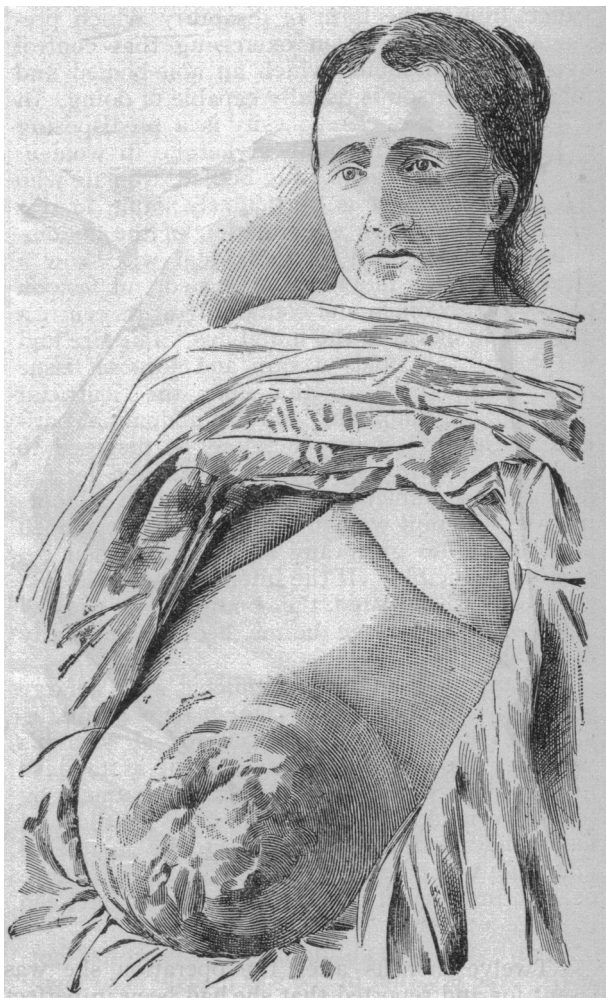
In neither of these cases did it seem advisable to attempt a radical cure. In case No. 1 the large size of the ring, its great depth below the surface, owing to the presence of large masses of fat, and the existence of Bright's disease, were sufficient grounds for not advising an operation. In case No. 2 suture of the rings might have been attempted, but unless I could guarantee a result which would make a truss unnecessary, it seemed to me preferable to try the treatment by reduction with subsequent use of the truss. This has proved so satisfactory that the question of operation has not been raised since.

The following cases show some of the difficulties to be met with in dealing with large umbilical herniæ:

Case 3.—Umbilical hernia; reduction by taxis.—Mary L., 43 years of age, entered the hospital on November 6, 1883. She is very stout, weighing over 200 pounds. A lump has existed at the navel for over ten years. It has increased in size, slowly diminishing at times, but never entirely disappearing. She has now a hernia the size of a small cocoanut, which emerges through an irregular opening apparently just below the umbilicus. Pressure by weight in the recumbent position entirely reduced the hernia, so that a truss could be fitted which held the hernia comfortably.

Case 4.—Large umbilical hernia; operation for radical cure.—Mrs. Rice, 45 years of age, mother of a family and a very large and stout woman, noticed a bunch about the size of a marble protruding from the navel. This gradually increased to the size of a fist, but could be put back. For the last five years the tumor has been irreducible

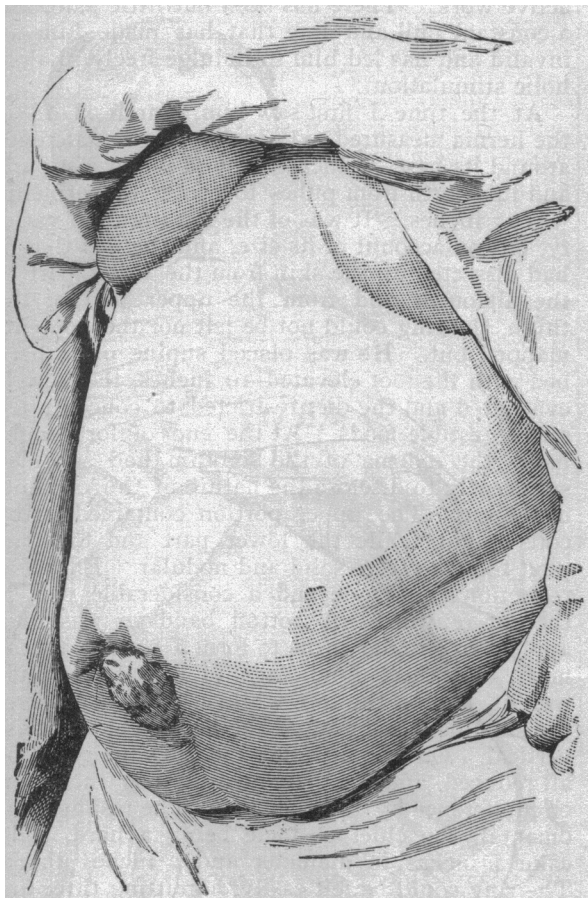
and has increased considerably in bulk, and the patient has suffered from frequent attacks of abdominal pain, nausea and constipation. On examination a hernia the size of a child's head (8 inches in diameter) was seen bulging from a broad abdominal fold. It was tympanitic and evidently consisted chiefly of intestine. By rest in bed with the foot raised for a month and pressure with sand bags the tumor gradually grew smaller, and finally was reduced by taxis, without ether, through an opening admitting three fingers. The patient was sent home to try the value of a truss. Three months later she entered the hospital for radical cure, as no truss or support could hold the hernia.



Case 4.—Before operation.

A median excision about six inches long laid open the sac. There were numerous bands and adherent masses of omentum, between and around which protruded the intestines. The appendix was adherent to the right wall of the sac and also a portion of the colon. These were dissected off, the bands were divided and portions of the omen-

tum removed. The edges of the ring were brought together with six silk buried sutures, and the opening in the sac was then closed with superficial silk sutures, a small portion of it having been excised. The wound healed by first intention, with the exception of a small tube sinus, which closed at the end of two months. The patient remained in the hospital one month and then returned and kept her bed one month longer. At the end of three months she showed herself and a photograph was taken. A hard, indurated mass covers in and closes the site of the old hernia. There is no expulsive motion in coughing, and the cure appears to be complete. She has worn no retentive apparatus.



Case 4.—Six months after operation.

Twelve months after the operation she was sent for and reported that she had been in perfect health and actively at work—never better for many years; had used no apparatus. A slight return of the hernia was found, of the existence of which the patient was unaware. Since that time has worn an abdominal belt, which prevents the hernia from increasing in size.

Case 5.—Large umbilical hernia; operation for radical cure.—L. S., 60 years old, married, young-

est child 25 years old; stout and unwieldy; mental standard not a high one. Entered hospital with an umbilical hernia considerably larger than a child's head. First noticed a rupture at the umbilicus thirty-five years ago, after jumping from a carriage. On examining herself, found a tumor about the size of a fist. Used at times a truss and a swathe. Five or six years ago it began to be very painful, and during the past year has increased rapidly in size. It has never been reduced. Has a history of epileptiform seizures at night. The circumference of the abdomen at umbilicus is 42 inches. The hernial tumor is lax and soft when patient is lying down, and the skin over it at points exceedingly thin. It measures $13\frac{1}{2} \times 14$ inches. After a week's rest in bed with sand bags over tumor the patient was etherized, and after three-quarters of an hour's taxis the whole mass was reduced through the ring, which was large enough to admit four fingers. The ring was padded and supported with a large adhesive plaster swathe. During the next two weeks the hernia was controlled by bandages, but it was evident that no truss would hold it, and the patient was accordingly etherized again and the sac laid open. In the interior the bowels were found nested in a large number of pouches. A considerable portion of the ascending colon, with the vermiform appendix, was found pointing in front, with a large portion of small intestines behind it. The appendix was so adherent that it had to be excised, in order to reduce the colon and its appendages so that they would remain without tension within the abdominal cavity. Many bands were divided and fragments of omentum excised. The edges of the ring were then brought together and sutured with six coarse silk sutures. The integuments were then brought together with silk sutures and two drainage tubes inserted. The wound healed apparently by first intention, and there was but slight pyrexia. There was considerable mental disturbance following etherization, and the patient tried to get out of bed the first night. This condition, however, soon passed away, and the wound had apparently healed when an abscess formed in one of the mucous pouches. This was opened, but the fistula has not yet healed, six months since the operation. The patient is about with a large pad over the umbilicus, at which a tumor about one-quarter of the original size presents. An examination shows that the stitches in the ring have yielded.

Case 6.—Double congenital hernia; MacEwen's operation. Chas. Green, 11 years old, small of stature and below average intelligence, entered the hospital April 28, 1888. Six years before had been advised by me to wear a truss, which had been used from time to time with slight success. The photograph gives an inadequate idea of the hernial tumor, which reached one-third of

the distance to the knees when fully distended. The rings were so large that the first finger and thumb of one hand could be introduced into the rings and made to meet easily in the abdominal cavity when the herniæ had been reduced. On May 1st the right hernia was operated upon by MacEwen's method for congenital hernia, *i. e.* a portion of the sac was left behind to form the tunica vaginalis. The wound was closed with a continuous catgut suture and healed by first intention. Three weeks later the other side was operated upon in the same manner. A small sinus remained for a few weeks, which had healed by July 1st. Was discharged without a truss August 1st. On his removal from the convalescent ward he had a urethral calculus and retention of urine at his home, which put the cicatrix to a severe strain, but he went through the ordeal successfully. Examined by me nine months after the operation, a slight return of both herniæ had occurred as the result of falling down the cellar stairs backwards. He still wears no truss, but the hernial tumors are small and do not trouble him. His family having removed to Providence, I have been unable to see him a second time.

Case 7.—Large scrotal hernia in an old man.—The photograph of this case, which I show you, gives a type of a certain class of cases of hernia, easily reducible, but which have been allowed to grow to an enormous size owing to the mentally or physically feeble condition of the patient. The present case is an Italian who does a certain amount of work, but is unwilling to buy a cheap apparatus or put himself permanently under treatment. The hernia is quickly reduced by the patient by catching it between the thighs, which give diffused pressure, when reduction is finally effected by the hands. For this class of cases I am in the habit of advising a large suspensory bandage made of jean cloth, which effectually prevents increase in size, reduces considerably the size of the hernia, and gives the patient a comfortable sense of support. The large size of the ring renders strangulation extremely improbable. These herniæ sometimes are subject to attacks of local peritonitis, but the use of the support is a good prophylactic against this accident.

Case 8.—Large incarcerated hernia reduced by Dr. Warren's method, by C. W. Galloupe, M.D., Harv. 1883, of Lynn, Mass.—My patient is a large-boned, heavy man, 46 years of age. At the age of 17, while in the act of lifting a cask weighing 825 pounds into the rear end of a wagon, his foot slipped a little on the snow, and he felt a sudden stinging pain in the left groin. This pain continued, and at the end of a week or ten days he noticed a swelling in the groin as large as the end of a thumb. He kept constantly at work, however, until at the end of two years his father noticed that he seemed weak and disin-

clined to lift. He then explained the cause of his laziness, and at that time examination disclosed a bunch, the size of a hen's egg.

An iron truss was applied by a country practitioner, which was discarded the next day on account of the pain it caused. In five years from the date of injury it had dropped down into the bag, and he was then fitted to a knitted bag, which acted as a suspensory. The rupture had increased constantly but slowly up to a year ago, when it was about the size of a cocoanut. At that time he jumped from a horse-car and felt a sudden yielding, while the rupture doubled in size in an hour's time. Since then it has steadily increased and has prevented him from doing any active work. There has been but little pain, but a constant pull and drag that has made him an invalid and has led him to indulge freely in alcoholic stimulation.

At the time I first saw him, March 28, 1889, the hernia measured $25\frac{1}{2}$ inches in circumference around its base, 30 inches around its largest part, and its length from pubes to center of perineum was 17 inches. It was of the left inguinal variety, but on account of its size, and the fact that it had dissected up the skin from the lower part of the abdomen and from the upper part of the thigh, the ring could not be felt nor the contents mapped out. He was placed supine on a hard bed with the foot elevated 10 inches, the bowels evacuated and the diet restricted to concentrated and digestible foods. At the end of forty-eight hours the cedema of the scrotum had subsided sufficiently to disclose the nature of the contents of the sac. The upper portion contained many coils of gut, while the lower part and the part next the ring were solid and nodular. Efforts at reduction were made and a considerable part of the gut returned. A cotton bandage was then applied in circular turns to form a pedicle to the mass, and three sand bags, of 3 and 5 pounds weight, laid on the top, while a broad sling over the shoulders and around the neck held the mass vertical. On the fifth day the intestine could be all reduced, and the mass measured 21 inches in circumference by 14 in length. The residue was omental, the chief obstacle being a hard, solid cake 4 inches in diameter and 2 inches thick. The ring could be felt easily, admitting three fingers. From the outset the cotton bandage was applied once or twice daily, and after a few days a rubber bandage outside the cotton. No attempt was made to exert pressure by bandaging across the top, as the effect of this was to gradually squeeze the mass out under the ring of bandage and cause the whole apparatus to slip off. For the same reason the sand bags were of but little value, the chief reliance being placed upon daily manipulation to break up the omental lumps and dilate the ring, while the tight circular bandage caused an internal tension which constantly tend-

ed to squeeze out the contents of the sac. No pain was felt at any time unless the rubber bandage was too tight. If applied directly to the skin it would roll up and cut in uncomfortably, so that the following plan was adopted: Ten yards of cotton bandage, 2 inches wide, were wound around close to the abdomen, including the penis and testicles, each turn being wound still closer, so as to form a hard constricting collar about 4 inches wide; outside of this was wound the rubber, being worn about three hours at a time.

On April 14th, the seventeenth day of treatment, while squeezing the omental cake, it seemed to separate on one edge and open out to form a crescentic mass, which was insinuated by its smaller end into the ring and by dint of steady pressure was wholly reduced, exposing an opening through the abdominal wall which easily admitted four fingers. A graduated compress and spica bandage retained the hernia, and two days later the patient was up and around the room with a water-pad truss on. Much difficulty has been found in getting a truss which would retain the omental lumps, but no intestine has escaped since the first reduction. The patient is attending to his daily work and has gained considerable fat since he got up, while the scrotum has shriveled very greatly and the ring has closed up about one-half.

An incarcerated hernia of this size was not a very promising case to undertake, more especially as it had proved itself unyielding to many physicians during the past twenty or thirty years; but having had the satisfaction of tending a number of such cases under Dr. J. Collins Warren, in the Massachusetts General Hospital and in private practice, I was encouraged to try it by his method of treatment. The result shows the value of his method, and the freedom from pain and danger will make the patient readily consent to it.

I regret to say that I have not yet succeeded in effecting a radical cure in any of these cases; but I may add that all the patients have been fully satisfied with the result of their treatment. I would recommend strongly the method of gradual reduction by pressure to the members of the Section. I do not advance it as a new method, for it is in reality exceedingly old, but I don't think physicians generally realize how much can be accomplished by it.

In the large umbilical herniæ the failure to get a permanent cure is due, I think, to the neglect to excise the edges of the ring before suturing. In order, however, to bring the different layers of the abdominal walls together, as in a laparotomy, the amount of dissection necessary would have greatly prolonged the operation and might have increased the danger. On another occasion, however, I think I should attempt it even in as complicated cases as these were.

ADVANCEMENT OF THE TREATMENT OF INSANITY DURING THE NINETEENTH CENTURY.

With Notes upon the History of the Treatment of the Insane in Louisiana, up to the Close of the Year 1859.

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THE ADVANCEMENT IN THE TREATMENT OF THE INSANE DURING THE NINETEENTH CENTURY.

Dr. Benjamin Ward Richardson, of London,¹ in a recent article, entitled, "Medicine Under Queen Victoria," dated July 25, 1887, has clearly shown by indisputable facts, that this first great advancement in the science of medicine commenced *practically* in the year when Queen Victoria ascended the throne half a century before, and consisted in the *adoption of the method of treating the insane without violent physical restraint.*

What the practice of medicine in the treatment of the insane had been previous to 1837, it is in this day almost impossible to conceive.

Dr. Benjamin Ward Richardson says:

"There was in it no science and certainly no humanity. I remember perfectly as a youth, climbing the wall of a barn in order to look through a small grated window at a poor lunatic, who for twenty-five years had been chained in one corner of the place, and in that condition had been retained and kept by his relatives as a dog, or other savage animal might have been. He was bedded down in straw just as other animals were, and except that it was put for him on a platter his food was given to him as might have been given to a dog. He took his food in his hands and tore it with his teeth, the idea being that it was not safe to let him have a knife or a fork, or anything more than a wooden spoon as a help for feeding. The people who had this man in charge were not more cruel than the rest of mankind. They labored under the idea that it was for the safety of themselves, and on the whole for the benefit of the insane man that he should be kept as he was kept. Had he been set at large he would have done some mischievous or dangerous thing for which he would have been punished, and for which they would have been responsible. It is true, they might have sent him to a madhouse, but there he certainly would not have been better cared for than at home. He would have been under the rod of strangers, and might have been exhibited as a show to those

¹The Asclepiad: "A book of original researches and observations in the science, art and literature of medicine, preventive and curable." By Benjamin Ward Richardson, M.D., F.R.S. Third quarter, 1887, page 207. Longmans, Green & Co., Paternoster Row, London; J. Blakiston, Son & Co., Philadelphia, U. S. A.; Cupples, Upham & Co., Boston, U. S. A.