

**CASE**  
**OF THE**  
**SUCCESSFUL TREATMENT**  
**OF THE**  
**INCONTINENCE OF URINE,**  
**CONSEQUENT TO SLOUGHING OR ULCERATION OF THE**  
**BLADDER FROM INJURY DURING LABOUR,**  
**WITH OBSERVATIONS.**

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**ENGLAND INFIRMARY, FOR DISEASES OF THE EYE.**

COMMUNICATED BY  
**DR. GOOCH.**

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*Read May 9, 1815.*

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**T**HE malady to which these observations relate, is one which occurs most commonly in the younger part of life; and from its peculiar circumstances is attended throughout the course of it with as much wretchedness perhaps as any to which females are liable, excepting those whose distress is aggravated by severe bodily pain. I am induced to offer to the Society the following ac-

count of the management of one of these cases, in which a new mode of treatment was tried, and proved perfectly successful, with the confident hope that by early and assiduous attention, many such may be cured which are now passed over without examination; or, when their nature is ascertained, are treated without sufficient watchfulness and perseverance, or at once abandoned as afflictions without remedy.

In answer to some inquiries I addressed in 1814, to Dr. Gooch, respecting the best mode of treating these injuries, which I found to be of not unfrequent occurrence; he informed me of a mode of palliating the inconvenience arising from them, which had been suggested to him by Mr. G. Young. It consisted in introducing into the vagina an elastic gum bottle, of a suitable size, to one side of which a piece of sponge had been previously sewed, large enough to cover the aperture into the bladder. It was thought probable that this would effectually prevent the incessant dribbling of the urine; and that the patient by introducing a finger, and compressing it, might at proper intervals allow the urine to pass,

A short time after the following case came under my care.

A young woman, after a labour of some days' continuance, was delivered by the perforator and

crotchet of her first child, which had been dead apparently about two days. During the labour she gradually lost the use and nearly the feeling of the lower extremities, accompanied by very severe spasms and pain in the hips. In the early part the urine was passed frequently; towards the end it was generally forced off during a pain, but no considerable quantity was at any time collected in the bladder.

After delivery the urine was discharged involuntarily, and she was scarcely sensible of the passage of the fæces, though she had the perfect power of retaining them. The numbness of the extremities and the spasms still continued. The parts about the perineum were considerably swelled, and a very foetid and dark-coloured discharge, in which were occasionally observed small portions of membranous sloughs, followed the delivery and lasted for about a week. During the fifth and sixth days she had the power of retaining the urine for more than three hours; but when it passed it scarcely allowed her time to move from her position in bed for the purpose. From the 7th day, she lost all power of retaining it.

When I saw this patient at the end of three weeks from her delivery, the urine was constantly flowing when in bed. She retained it but for a short time when sitting up, and under the

latter circumstances she was utterly unconscious of its coming until she felt wetted by its presence. She had been gradually recovering from the numbness of the extremities, though unable to walk without help; and had recovered a perfect sense of the passage of the fæces.

The retaining the urine at will not returning with the increasing sensibility and strength of other parts; and the knowledge of the circumstances attending her labour, rendered it probable that some communication had been formed between the bladder and vagina. And on introducing a catheter through the urethra, and a finger into the vagina, an opening was immediately discovered just about the neck of the bladder, which exposed the instrument for more than an inch in length, and through which the point of the finger could be passed into the bladder. The edges of the aperture were irregular, soft and yielding, the touching them caused no pain, nor did any blood make its appearance on withdrawing the finger. The swelling of the parts about the entrance of the vagina had subsided quickly under the use of a decoction of chamomile flowers, which had also been regularly thrown into the vagina whilst any unhealthy discharge proceeded from it.

A flat silver catheter was left in the bladder, and a few days after an elastic gum bottle was introduced into the vagina. A firm one was se-

lected, capable of containing two ounces of water; and had sewn on the convexity of its side a thin fine piece of sponge as large as a dollar. A double string was passed internally through its bottom, and left hanging through its neck. The sponge was well smeared with the calamine cerate, the bottle dipped in oil, folded longitudinally and passed into the vagina with the sponge in front. From its elasticity it immediately expanded, and by a finger introduced through the neck it was readily placed in its proper situation, so as to bring the sponge immediately opposite the perforation in the bladder. The catheter was then withdrawn.

In this situation it filled the vagina, and kept up a gentle and equable pressure on the injured part, so equable and so effectual that whilst the bottle was in the vagina the urine was perfectly retained for a little more than two hours. If the bladder was not then emptied by the catheter, the urine continued to ooze away until it was drawn off. Guided by this the catheter was introduced every two hours during the day. This was preferred to keeping the instrument constantly in the bladder, as she found much inconvenience from its remaining there when sitting, and without further mechanical aid it was not possible to keep it steadily in its situation when walking. It was not thought that the opening would be stretched by the inconsiderable dilata-

tion of the bladder from the urine collected during the course of two hours, as she drank but very little in quantity, and the water drawn off seldom exceeded two ounces, generally did not amount to so much. Provided no urine passed through the opening, the principal object appeared to be obtained, and the patient was enabled at the same time to get out of doors. When in bed a short flat catheter was kept constantly in the bladder. The bottle was withdrawn, and a fresh one introduced every morning before she left her bed.

The comfort afforded by this plan in keeping her dry during the day was exceedingly great. She was enabled to move, sit, or lie without inconvenience, nor was she ever wetted unless the bottle was become soft from use. This, when discovered, was carefully guarded against by renewing it frequently. In a short time she learned to pass the catheter herself, and felt happy in being thus relieved from much of her anxiety and dependance.

At the end of a month the opening was found to be very perceptibly lessened. At the end of two, it was not more than large enough to admit the catheter to pass into the vagina. In the course of the fourth month she found occasionally that the bottle did not answer in keeping her perfectly dry as it had hitherto done. The perfora-

tion at this time was so much contracted as not to allow of the catheter being felt through it, but some degree of vacancy at the spot was still perceptible. A few weeks afterwards on another examination, the depression was still existing at the injured part, and the catheter could be distinguished there more sensibly than either above or below the spot. The investigation was made with much caution and gentleness, and the result was such as to evidence a belief, that the aperture had closed. The same means were continued however for a fortnight longer, after which the bottle was left off by day, as it was found she remained perfectly dry without it. The catheter however was still introduced every two hours whilst up, and at night the bottle and catheter were employed as at first, it being thought most prudent still to keep up a moderate pressure, and to prevent any distention of the bladder, or even that natural action of it which would be required if the urine were expelled without the aid of the catheter.

After a short period the time of drawing off the water was gradually lengthened, until it was retained six hours. The use of the catheter was still continued for some weeks longer, though the bottle had been for some time left off. At the end of about nine months she resumed her natural habits, in every respect as well as before her labour.

In this instance the loss of substance from sloughing or ulceration, was considerable; as great probably as commonly occurs in cases of this nature; and the opening may be considered as being closed at the end of a little more than five months from the receipt of the injury.

This is the only case of recent injury which has come under my notice. The subjects of those which follow were all patients of the hospital in this city about the same period. For one of them only were any means of cure undertaken, and they proved of little avail. The cases are not otherwise of interest than as illustrating some points in the history and treatment of this injury.

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### CASE II.

Devon and Exeter hospital, 1813.—Reed, *æt.* 19, fourteen months before her admission was delivered of a dead child (her first), without any assistance from instruments, after a most severe labour of about 50 hours. The water was drawn off once during labour, and she has no recollection of having at all retained it after its termination. It was followed by considerable inflammation with a dark coloured and offensive discharge.



The vagina is now contracted just about the opening of the urethra into a callous ring, large enough to admit the passage of the finger. Above this the os tincæ can be felt adhering by its front edge to the posterior part of the bladder, and forming the upper edge of a circular opening leading into the latter. The breach is large enough to admit the point of the finger, and has a very firm thickened edge. The urethra, about half an inch from its inferior termination, is closed so as not to admit the passage of a very fine bougie, or the passage of any fluid into the bladder by injection.

The case was considered irremediable. It appeared that no examination into the cause of her complaint had ever been made until the present time. It is an instance of the effect of neglect in adding to the evils of a very severe injury. In all probability the contraction of the vagina might have been prevented; certainly there could have been no difficulty in keeping the urethra pervious, and giving the chance at least of the closing of the opening above. As it is, all hopes of cure are extinguished, and the means of palliation rendered more than commonly difficult of application.

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*CASE III.*

Devon and Exeter hospital, 1814.—S. Hurston, æt. 36, after a lingering labour of four days, was delivered by instruments of a dead child. The water was drawn off several times during her illness, and once after her delivery. From the first day, she thinks the urine began to flow involuntarily, and has so continued to the present time. When sitting up and perfectly still, she can sometimes retain it for the space of an hour.

On examination at the end of seven months from her delivery, a circular opening was discovered between the neck of the bladder and the vagina, large enough to allow of the passage of the catheter into the latter. The edges of the perforation thickened, but soft,

After a period of seventeen months from her delivery, she became a patient of the hospital. At this time the aperture had considerably lessened, allowing only of the passage of a common probe, but the inconvenience remained unabated. Nearly the same means as those detailed in the first case were employed for about two months, without effecting any perceptible amendment, though during their use the evil was materially

alleviated, the patient being enabled whilst at rest to retain her water nearly three hours. When she moved, a slight oozing took place, but by a frequent use of the catheter (which she had been taught to introduce herself) she was able to keep herself tolerably dry. Finding her complaint as distressing as ever if the bottle was omitted, she became impatient, and left the hospital, provided with a catheter which she kept in through the night for some months longer. For a short time after her discharge a piece of cork dipped in wax, resembling the elastic gum bottle in form, was employed, but it never answered the purpose of stopping the dribbling of the urine as effectually as the latter, and occasioned from its unyielding size some pain and difficulty in introducing it. At the end of six months from her discharge from the hospital, her complaint continued in the same state.

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*CASE IV.*

E. Williams, æt. 26, September, 1814. Devon and Exeter hospital, ten months since was delivered of a dead child (her second) after a very severe labour of three days. During the last two she passed no water. An attempt was made to introduce a catheter, but unsuccessfully, about six hours before the birth of the child. From that time the urine passed off involuntarily for a week. She

then recovered the power of retaining it in the natural way for three days. On the last of these, she felt sensible of something giving way, as she expressed it, in the birth; the urine immediately flowed off, and has continued to do so to the present hour. For the three days in which she passed it naturally, it was very thick, resembling whey. She had a very offensive discharge from the first, and several times brought off small sloughs. There was some laceration of the perineum, the labia swelled, with many internal ulcerations for some weeks. For three or four days after her delivery she could not retain her stools, and for nearly a month she lost all sensation in the nates.

An examination was made at the end of five weeks from her confinement, when a catheter passed with readiness through an opening at the posterior part of the bladder just above the urethra.

No perforation could now be felt, or discovered by a very careful examination. It could be perceived however that the urine did not pass from the urethra, but from some spot higher up in the vagina. Her own sensations had already fully convinced her that it did not come by the natural channel, and she was particularly conscious of it when lying on her back. The catheter passed in with some trifling obstruction, and

not without occasioning considerable soreness and pain. It was found that she was now in the sixth month of her pregnancy, in consequence of which she could not be kept in the hospital.

She has since, I hear, been delivered of a full grown child. Her complaint continued as before. But for the history of the case, and the fact of the opening having been observed soon after labour, which led to a minute examination, this might easily have been regarded as an instance of incontinence of urine not depending on a fistulous opening, the perforation being not at all discoverable by any thickening or hardness of its edges, or by any perceptible vacancy in the posterior surface of the bladder.

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#### CASE V.

Devon and Exeter hospital, 1814.—A. Sheay, æt. 28. The opening of communication large enough to admit the catheter with facility. The vagina irregularly contracted by very firm bands.

Four years since she was delivered in Portugal of her fourth child. The labour had continued nine or ten days before the Portuguese midwife sent for a surgeon of the English army, who found the arm in the vagina. He turned the

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child, and left her. It was three days after this before the foetus was expelled in a putrid state. She had no retention of urine during labour. On the second day after her release, the urine burst from her in considerable quantity, and has continued to trickle away unchecked by any position, or any other means from that time.

The narrowing and altered direction of the vagina prevented the application of any compression. Nothing was attempted.

The injury of the bladder during labour which induces a sloughing or an ulceration of its coats is in most instances, I believe, the consequence of pressure. It may in some cases be produced by instruments, and in others aggravated by the distended state of the bladder itself. The breach is generally in the same situation, varying in size according to the degree of pressure, and consequent inflammation. There appears to be always a disposition in it to contract to a certain point, and then continue fistulous, unless the narrowing is prevented by the adhesion of its edges to some contiguous part. In two of the cases here related (III. and IV.) in which there were no adhesions, the diminution of the aperture had been very marked, without any interference from art, but in neither instance is the closing of it a matter of probability. These patients were not in any worse condition at the outset than the sub-

ject of the case first given, and the same treatment early employed would, there is much reason to think, have been followed by an equally successful result. In the other cases (II. and V.) the injury appears to have extended further, but the neglect of timely attention had produced consequences which formed an insuperable bar to any hope of cure, or alleviation.

The point of primary importance in the treatment appears to be an early application of the means of cure. The principle of the management is simple. It consists in keeping up that degree of pressure which shall prevent the flow of urine through the opening, without exciting ulcerative inflammation, and in providing at the same time a free passage through the urethra.

The pressure should be commenced as soon as the inflammation of the parts will allow. It has been directed to be made by cork, or wax of a suitable form, by linen, or by a bag filled with cotton, and coated with elastic gum\*. These modes are all however in some respects imperfect. The solid bodies cannot in any degree adapt themselves to the form of the cavity they occupy; and if introduced of sufficient size to bear with effect on the opening in the bladder, are the cause

\* Desault.

of pain and inconvenience. Nor with every care in giving them the most suitable shape, can they easily be directed so as to bear steadily and with effect on the deficient point. All these defects are not found in the softer modes of compression above-mentioned, but they are neither of them so complete in their office as the bottle of Caoutchouc. This can most readily be introduced and withdrawn; when passed in, it occupies fully the space allowed it; it injures no part by its pressure; and its elasticity is such as to continue a sufficiently firm and equable bearing on the opening, which it closes more exactly than any solid body can do, as from its hollowness it admits of the sponge being placed in the best possible situation. On this last account, as well as from the facility of introducing it when folded, it is preferable to the solid gum of a similar size and form.

The passage of the urine will be best preserved, without interfering with the pressure, by means of a flat catheter continued in the bladder, or introduced at short intervals.

In cases in which expectation of a cure is no longer entertained, the same means will perhaps be found the most efficacious in procuring some alleviation of the evil, as well as the most easy of application.



In order to fit the elastic gum bottles for the purpose, those which are the thickest, and most firm, should be selected, of a size most suitable to that of the vagina. They should be softened, and filled temporarily with clay to give them a smooth and regular form. It will be necessary to have three or four in use which should be changed daily: by this method they have time to recover their firmness by exposure to the air; and their form may be preserved by stuffing them with horse-hair. The sponge attached to the side, should be thin and compact in structure. And a cord passed through the bottom of the bottle will much facilitate the withdrawing it.

Pressure employed as a means of cure when the opening is become fistulous, in the only instance here given of its operation, was followed by no perceptible advantage. The trial however was much too short to warrant adducing the case as any satisfactory proof of its inefficiency\*. It might probably have been assisted by scarification of the

\* In the relation of the practice of Desault, whose genius and industry were never exerted in vain, it is stated that he succeeded by means of pressure in curing cases in which the evil had existed a considerable time, but that it was found necessary to continue it for more than twelve months. Desault is the only author with whom I am acquainted, excepting Richter, who delivers his opinion with any clearness or confidence on this subject; and the sentiments of the latter are chiefly a transcript from the first. The cases have, I believe, been generally set down as incurable.

edges of the opening. The cure under such circumstances will be found, I doubt not, infinitely more tedious, and difficult of accomplishment than where an early attention has been paid to the complaint. It is a sufficient reason for making an examination into the cause of every case of incontinence of urine consequent to labour. The object is too important to allow us to trust to conjecture however reasonable, when better evidence is within our reach.