Of the three forms of Fistula which may occur in females, I have thought proper to select that form known as Vesico-Vaginal; although this is a subject concerning which there is little room for any original views on my part, especially when it has been so fully investigated, and treated with such success by my respected teacher Professor Simpson, yet I deemed it proper to attempt as far as I can to prove the utter uselessness of the forms of treating this complaint as set down in books, being fully convinced of the superiority of Professor Simpson's method of treating these cases above that recommended by other gentlemen. Having now stated my views (nulla tamen in parvo) respecting this troublesome complaint, it will be as well for me to state what the complaint is, its cause, symptoms, treatment, and result.
What is to consist of a perforation of the walls of the vagina anteriorly produced by causes to be subsequently mentioned. It is one of the most troublesome complaints to which females are liable, and has long been considered as one of the most troublesome complaints with which obstetric practitioners have to deal. Formerly all such cases were generally considered incurable. It is a complaint which causes the greatest annoyance and inconvenience to the sufferer, not only as regards herself, but also to those around her, until at last she ceases to mingle with her friends and society; in fact, leads the life of a recluse.

With all these distressing symptoms which are causing not only pain but great mental anxiety to the patient, we cannot imagine with what joy the poor sufferer hears the glad tidings that her complaint can now be treated, and only treated, but brought to a successful issue.
We have indeed to thank Professor Simper for the great improvements he has made in alleviating the torture of these poor sufferers, for as I shall be able to show, that in adopting his method of treatment, nearly the whole of his cases have been cured, with these few remarks regarding what it is, I will now pass on to state the causes which may give rise to this complaint.

Causes. There are several causes which may give rise to this complaint, such as:

(a) Either wall of Vagina may be wounded, accidentally, or on purpose by cutting instruments. Such has been the result of criminal attempts to procure abortion; in these cases however, a cure often takes place spontaneously.

(b) The long retention of a Pessary in the Vagina, may give rise to inflam-
oration and ulceration of the Vaginal Tunics, + ultimately to perforation of the Bladder + Rectum; this however, seldom occurs, + then only in aged females.

c) In powerless or difficult labours, when the head of the Child is long retained in the Pelvis, + by its pressure upon the soft parts, the Vagina may be the seat of inflammation, ulceration + perforation, involving either of the subjacent organs, more especially the Bladder.

d) A maladroit use of instruments may occasion this injury.

e) Retention of urine during labour will generally involve more or less pressure upon the Bladder, if within certain limits, perforation will be the result of subsequent inflammation.

f) The Bladder is occasionally lacerated in rupture of the Uterus, though there may or may not necessarily be perforation of the Vagina.
A pelvic abscess may open into the Bladder, Uterus or Rectum, or into more than one of these cavities, so the opening may remain fistulous, and in the cases published by Dr. Simpson.

Situation. Urinary Fistula in the female usually implicates the base of the Bladder where it rests on the Vagina, sometimes higher up, or lower down.

The shape of the opening may be round or oval, or very irregular; in the form of a rent running longitudinally, from before backwards, or transversely.

Symptoms. These depended primarily on the cause of the Fistula, and secondarily, upon the escape of the contents of the wounded part. The Urine dribbles through the preternatural aperture. It is generally continuous, although, if it be situated
far back behind the orifices of the ureters, it may be somewhat intermittent the escape taking place as the lower portion of the bladder fills. The incontinence of urine thus produced gives rise to irritation and excoriation about the vagina, external parts and thighs, and occasions a strong ammoniacal odour to hang about the patient.

Diagnosis. In some cases there is very considerable difficulty in making out the diagnosis of vesical-vaginal fistula; the most common cause of prevention being the existence of cicatrices in the vagina, otherwise we can generally ascertain with tolerable certainty the true nature of the case, by passing a catheter into the bladder and then introducing one finger up the vagina, until we feel the end of the catheter touch the finger.
We can also arrive at a tolerably correct diagnosis by injecting a little milk and water into the Bladder, (having previously introduced a Speculum into the Vagina) and then observing at what point the fluid makes its escape into the Vagina. Several forms of Speculum have been recommended for the purpose of aiding us in our diagnosis, but that invented by Professor Simpson is in my humble opinion the best; it consists of a Metallic Spatula (Silver) bent in the form of the letter S, or probably an quite as much curved. I can best explain my meaning by making a rough sketch of the Instrument.

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Having formed the diagnosis that it is a Vesico-vaginal Fistula
with which we have to deal, the next step is, how are we to remove this painful and distressing condition. It will be useless to speak of any palliative treatment, as it will not afford the slightest relief, and therefore we must have recourse to operative measures; and it is very seldom that patients will show any reluctance to this proposal.

Proposing till lately most Obstetricians and Surgeons despised if being able to do anything in the way of a cure, in fact some Obstetricians used to speak of such cases as utterly incurable, and declared that all reported cases of cure were misrepresentations, but matters are now however I am happy to say entirely changed. The results of treatment in pro-
during a cure will depend upon the situation & duration of the lesion, & also upon the cause of the accident. If it has been produced by a sharp cutting instrument it often heals up of itself without any treatment at all being required; the probability of cure also depends upon the situation. When the pressure is far back & there is considerable loss of substance, success seldom attends the efforts used; but when it is near the neck, there is a better hope of success.

**Treatment.** I shall now describe the different modes of operating that have been tried, & the one that is the most successful at the present day.

1. One mode of Treatment consisted in introducing a Catheter into the Bladder, at the same time ply
...ing the Vagina) as soon as possible after the Fistula had formed, in order to divert the discharge from its unnatural channel, in the hope, that in the contraction which ensued after the sloughing the Fistula might close up. Cases of success from this treatment have been reported by Desault (who first proposed it) and others. Chopart succeeded in curing a case by this means, where the wound was in the neck, but failed where it was in the body of the organ. Dr. Churchill reports a case in which one of his patients derived much relief from the operation, by being ultimately enabled to retain her urine for two hours, without dribbling, though the wound did not entirely close. This method however is in some cases impracticable owing to the irritability of the Bladder, to cou-
Since the Catheter in the Urethra
(2) Cauterize & the Actual Cautery
have been frequently used, but
with a success which is usually
only temporary; the escape of the
Urine may be restrained so
long as the swelling of the mar-
gin produced by the applica-
tion of the Irritant continues,
but as soon as this subsides
the case becomes as bad as
ever. Successful cases are
reported by Dupuytren, Lister,
 McDowell & Kennedy; Dr. Churchill
says he witnessed a successful
case treated by Dr. O'Ferrall, he
also tried it himself in one
case under his care but failed.
Professor Simpson mentions that
he has seen the Treatment appli-
ced by Lister & others, & as having
adopted it himself, but never
once saw it succeed in effecting
a complete cure.
Galvanism has also been tried
but with very partial success. Blundell relates a different mode of treatment where the Fistula at the neck of the Bladder was cured by opening it, then healing up the wound in the same way as a Fistula in Ano. Mr. Parker of the Meath Hospital performed this operation which turned out well.

Suture. This method has long been put in practice and is the one universally received at the present day; the merit of its introduction is said to be due to Roehuenpsew, a Practitioner of Amsterdam in 1663, whose name is connected with the surgery in Operative Midwifery. He first proposed to cure Vesico-Vaginal Fistula on the same principles as Harelip, viz. by passing the lips of the Fistula, and then bringing and keeping their
raw edges together with stitches of silk.

It is not mentioned whether Bosanquet ever put this, his own proposition into practice, but it is known that some of the Continental Practitioners were the first to try this operation, but failed there to cure their patients by it; when the operation fell into disuse and no notice appears to have been taken of it until Nogéle again brought it before the Profession about the beginning of this century, since when it has been used with varying success by many eminent Surgeons. Different ways are recommended for performing this operation with the suture. In Joret of Paris, and most of the continental Surgeons use stitches of silk, the way in which the former Surgeon performs the opera-
ten in this, he seizes the edge and surrounding surface of the fistula, and then paring the side of the uterus, he brings the denuded surface of the Bladder on to the denuded of the Uterus, and keeps them in apposition by the interrupted Suture; this method of operating is not a very satisfactory one, for there does not appear to be many successful cases stated by those who have performed it; most of them being either only relieved, or not at all benefited.

Many improvements in the mode of operating & the materials used have lately taken place, which have given great hopes of success; the greatest improvement is that owing to the introduction of Metallic Sutures instead of those of Silk & Hemp which were formerly employed. The great success which has attended the operation since the introduction of Metallic...
Sutures is owing to their not giving rise to any appreciable inflammatory disturbance, as is the case with the Silk + Hemp Sutures.

A series of experiments performed by Professor Simpson proved the superiority of the Metallic over the Silk + Hemp Sutures, thus, having made corresponding wounds of various kinds, usually on direct opposite sides of the Body, he sewed some with threads of Silk + Hemp, + others with Metallic ones; + found that the former almost invariably began to inflame + suppurate along their track a few days after their introduction, while the latter remained as it were quite passive in the lips of the wounds, without exciting either suppuration or ulceration.

Having now mentioned the meaning of the term Vesico-Vaginal
Fistula, its Causes, Symptoms, Diagnosis, Prognosis, & the few different modes that were formerly used for treating this distressing accident, & also the improvements that have lately been introduced, I will now proceed to describe Professor Simpson's mode of operating; having placed the patient on her left side, you introduce the speculum, which is held in situ by an assistant, three or four of whom will be required during the performance of the operation, one to hold the speculum, when required to keep aside one of the labia pudendi with the finger, & also be ready to hold aside some of the ends of the wires a second to keep aside the other labium, & seize the ends of the wires on his side; a third to attend to the exhibition of Chloroform, &
a fourth to take charge of the Instruments. Having then intro-
duced the Speculum & ex-
posed the Fistula you seize
hold of the edge of the lower
lip of the Fistula about its
middle with a Tenaculum,
& with a straight knife cau-
tiously & carefully pare the
edges of the Fistula taking
care to bevel the edges off to a
considerable distance from the
Vesical margin. If any small
vessels bleed profusely, usually,
the introduction & pressure
of a Sponge in the Vagina
will suffice, or if not, they will
be required to be seized & twisted
with a pair of long Artery Forceps,
having proceeded thus far the
Patient may be allowed to rest
a little.

The next step in the operation
is the introduction of the Stitches,
formerly this was found to be the
most difficult and tedious part of the operation, owing to the metallic threads not being easily introduced with common surgical needles which were always used, but Professor Simpson has removed this difficulty by inventing an improved needle; It consists of a hollow tube terminating in a fine point, & curved about an inch from the end, the tube is fitted into a metallic groove to which the handle is fixed, one orifice close to the point, & another near the handle; The wire which is iron is pushed a little way into the latter of the two orifices; the parts having been fixed & supported with a blunt hook, the needle after having been passed through the margins of wounds, the wire is pushed right through & seized with a pair of long forceps. The needle having been withdrawn, the wire is left in its place, & can
be pulled through as far as required, taking care to use a director to prevent the wire from cutting the mucous membrane.

The third step in the operation is that of bringing the edges of the Fistula together, in order to do this the wires passed through the lower lip of the wound must be seized by the fingers and pulling tight each separate pair of threads, and then the whole together, at the same time pressing up below the lower layer of them on the inferior lip of the Fistula so as to press it against the upper one, so as to bring the lips into perfect apposition.

The fourth step in the operation is to tie and fix the threads in such a manner as to favour a speedy union, and complete closure of the Fistula; in order to effect this an Iron wire splint has been invented by Professor Simpson. It is made
by twisting with the fingers 10 to 15 pieces of fine thread into a cord, the ends being doubled over each other and plaited into the form of a circle, through the corresponding openings made along each side in the instrument. Sutures are passed, the splint may be passed down to the wound and accurately adjusted either with the fingers or forceps; the sutures are tightened and fixed by an instrument also invented by the Professor which consists of two extremely short and very fine tubes fixed on the end of a steel rod.

After Treatment
Immediately after the operation and before removal of the patient, draw off the water that has accumulated in the bladder by introducing the short flexible sigmoid catheter, leaving it there to draw away the constantly fresh.
secreted urine; it must be looked at every 1/2 of an hour to see that the water is dropping freely from it, & ought to be taken out & cleaned twice a day. Opium should be given to the patient as to keep her fully under the influence of the drug, the object being to subdue the movements of the Bladder, locking up the Bowels, & enabling the Patient to maintain for a long period the horizontal position. In the midst of this day the Sutures may be removed, by clipping them through with a pair of sharp pointed scissors just below the twist, & close to the lower side of the Splint, which is thus loosened, & can be removed by carefully lifting it upwards; the Patient must wear the Catheter a day or two longer, & afterwards be gradually accustomed to retain the water first for an hour, then for 2 hours.
afterwards for a longer period.

In conclusion, I will briefly take a retrospective view of the various modes of treatment recommended for the relief and cure of this very disagreeable lesion, and after mature consideration must certainly say that I consider the method employed by Professor Simpson to possess many advantages over any of the others, and by referring to the statistics the results of the cases treated by him will be found highly favourable.

With respect to the plug, my humble opinion would lead me to suppose that the amount of irritation caused by the constant employment of a plug placed in the vagina would be a source of much disagreeable sensation, and
although considerably better than having the Urine constantly dribbling away from the Bladder, yet, it would only be palliative and must be far eclipsed by the permanent relief afforded by the employment of the Metallic Puslits.

(2) Cauterization, we are told does not often effect a cure; the repeated application of strong Cauterics, must be very disagreeable notwithstanding the employment of Chloroform, because the cure takes a much longer time and the results of the method are not nearly so favourable as in the employment of the Puslits.

The last mode of Treatment I shall mention is the use of the Actual Cautery, which may I think be employed with some advantage in cases where the Fistula is small; if however if an extensive nature it is of no avail and fact will do
more harm than good. Therefore
I consider the best and most ef-
spectral mode of treating Vesico-
Vaginal Fistula is by the employ-
ment of Metallic Sutures a de-
scription of which I have previously
been given.

Statistical

Vesico-Vaginal Fistula (Simple Form)  

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
<th>Cause</th>
<th>First Appearance of Treatment</th>
<th>Result</th>
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<td>Mrs. Gill</td>
<td>Dec 25th</td>
<td>1851</td>
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<tr>
<td>Mary Kinney</td>
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<td>Jane Ari</td>
<td>Sept 10th</td>
<td>1854</td>
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<td>Barbara</td>
<td>Jan 1st</td>
<td>1856</td>
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<tr>
<td>Jane Paterson</td>
<td>May 24th</td>
<td>1861</td>
<td>14th day</td>
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<tr>
<td>Anne Barry</td>
<td>May 11th</td>
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<td>Isabella Pett</td>
<td>Mar 13th</td>
<td>1863</td>
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<td>Mrs. Garman</td>
<td>Nov 18th</td>
<td>1860</td>
<td>14th day</td>
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<td>Mary Walsh</td>
<td>Apr 1st</td>
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<td>Mary Bailey</td>
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Vesico-Vaginal Fistula Complicated

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<td>Dec 25th</td>
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Instruments: Bladder-turning. Sutures Cured
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<th>Disease</th>
<th>Result</th>
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<td>Mary Maas</td>
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<td>Helen Ferguson</td>
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<tr>
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Note: The last entry is partially obscured by ink.