OBSERVATIONS

ON THE

RADICAL CURE OF RETROFLEXION OF THE UTERUS.*

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It is not my intention on the present occasion to enter into any lengthened discussion on the nature and causes of retroflexion of the uterus. I expressed my opinion pretty freely on the subject twenty-four years ago in 1847, in a paper read before the Dublin Obstetrical Society, and subsequently in another communication to the same society in the year 1862, both of which were published at the times of their being read. At the time of my first writing, retroflexion of the uterus was considered a very rare affection. Dr. Ashwell had thus recently expressed himself: "There is no doubt in the profession about the existence of procidentia, inversion, and retroversion of the uterus, but there are many practitioners who question whether the uterus is ever anteverted, anteflexed, or retroflexed." In the course of my paper I detailed several cases that had come under my observation, and expressed my opinions as to the nature, cause, and appropriate treatment, and I concluded with the following:—"In conclusion, I would observe that it is not unlikely these cases are more common than is generally imagined; that the diagnosis from the symptoms and from an examination by the vagina and rectum is not difficult; and that much benefit can be obtained by attention to the pathological condition of the uterus." In the following year—that is, in 1848—the late Sir James Simpson published his first paper upon this subject in the *Dublin Quarterly Journal of Medical Science*. In that paper he says: "With some of the displacements of the unimpregnated uterus practitioners have long been familiar. In particular, the displacements of the organ downwards in the form of prolapsus and procidentia, are recognised and acknowledged by all, and elaborately described in every work on female diseases; but displacements of the unimpregnated uterus in the form of versions or flexions, either of the whole or of the upper part of the uterus, posteriorly, anteriorly, or laterally, have hitherto been looked upon as rare, and this far more, however, from our past want of power of diagnosing them, than from their own infrequency."

From this it is plain that retroflexion of the uterus was considered to be a very rare affection up to the year 1848. But subsequent experience has shown, as I expected, that it is not an uncommon occurrence, but that, as the means of detecting it have been improved, so has its greater frequency been observed. I have spoken of retroflexion all along, as I do not wish to include the subject of retroversion. Sir James Simpson considered them both under the one head; but I think there is quite enough difference between them to entitle them to separate consideration. In retroversion the whole organ is displaced, the fundus coming down, while the os is turned up; but in retroflexion there is little or no displacement of the os; it preserves its natural position, while the fundus is bent down at an acute angle backwards. I am not going to enter into the consideration of the cause or causes of this displacement; but of this I am quite sure, that treatment which will relieve, and even remove the one, will not be sufficient to remove the other, and in retroflexion something more is required than in retroversion to effect a cure. Pessaries of various forms are found to retain the uterus in its position after being replaced by the sound in cases of simple retroversion, and if persevered in for a sufficiently long time, and due attention be paid to the position of the patient, great relief follows. But when the organ has got the vicious bend in retroflexion, I do not believe that any form of pessary in the vagina is capable of rectifying its shape. You may push up the fundus, but you do not thereby straighten the uterus; and the case remains uncured until that is done. Sir James Simpson was aware of this, and he contrived various means of straightening and keeping the uterus straight. His first was the stem with a bulb at the bottom, intended to keep the instrument in the uterus for an indefinite time; but finding that the stem continually slipped out, he contrived the method

of fixing the stem in the uterus by means of a wire-cradle fixed outside over the pubes, and extending down to the perinæum, where an arm projected into the vagina, to which the intrauterine stem was rigidly fixed. This, from its fixity, was found not to answer, and it became desirable to contrive means whereby the uterus could be kept straight and yet permitted to have that freedom of motion which is its natural condition. Dr. Moir (*Edinburgh Medical Journal*, 1860) proposed to dilate the os largely by means of sponge-tents gradually increased in size; and having done this, to allow the uterus to contract on wire bougies covered with gutta-percha, these being gradually reduced in size; his object being to allow the uterus to contract very gradually, and to make it contract in such a manner that it at the same time acquired the proper shape. It appeared to me, about the same time, that a simpler mode of proceeding would accomplish the object more easily and perfectly; and having found it to answer my expectations, I published an account of it in my second paper on Retroflexion, in 1862. I will quote a passage from that paper, which will show the principles on which I founded the treatment proposed. "Most commonly there is a certain amount of enlargement, the result of inflammation, which keeps the organ in a state of painful sensibility; and when this is accompanied by ulceration of the cervix, it gives rise to the distressing sensations complained of when the patient stands or walks, and more particularly during the act of defæcation, when the contents of the bowels are forced past the tender fundus, displaced and bulging, into the canal of the rectum. Whether this inflammation of the uterus be the cause of the displacement by enlarging the fundus and thus giving it additional weight and tendency to topple over, or whether it is the result of the unnatural and strained position in which the organ is placed by the retroflexion, I will not now stop to discuss. It is enough for my present purpose to state that, the inflammation is at times, and not rarely found to exist, and when it does exist, it should have much influence in modifying the treatment. To attempt to force an inflamed and distorted uterus into its natural shape and position, and to keep it in that restored condition by artificial supports, must only increase the existing inflammation, and, if persevered in, will surely place the life of the patient in great danger. On the other hand, when there is no inflammation of the uterus, or if, when there is, proper means have been adopted to remove it—such as rest, leeches, warm hip-baths, light diet, vaginal injections, direct applications to the ulcers (if any exist), etc.—there is no doubt that the use of mechanical support may be had recourse to with great advantage."

The plan which I then proposed was to rectify the position and shape of the uterus by means of the sound, and then to pass one of Sir James Simpson's uterine stems with the bulb at the bottom, into the cavity of the organ. This, I may say, in passing, is often not easily done; for the sharp bend in the uterus is at times so rigid and permanent, that the instant the sound is withdrawn the organ flies back to its false position, as if with a spring. The stem once introduced, is to remain for at least four or six weeks. But unless it be kept in its place it will fall out. To prevent that, I proposed to insert a flat boxwood pessary into the vagina, upon the smooth surface of which the bulb of the stem would rest, and would move freely over its surface, thus enabling the uterus to change its position as it is accustomed to do, according as the bladder and rectum are filled or emptied, or as the position of the woman is horizontal or perpendicular, while yet the organ is kept quite straight by the stem within. The daily use of a weak astringent wash thrown into the vagina with a syringe would keep the mucous membrane free and healthy, and the woman from the first day might go about without the least inconvenience. I proposed to remove the pessary and stem at the end of the term specified, by which time the uterus had grown straight; but as a precaution against any relapse, I proposed the insertion into the vagina of a single ring of gutta-percha, made by bending a rod of that material a quarter of an inch in diameter into a circle of the same diameter as that of the boxwood pessary just removed from the vagina. When such a ring is introduced into the vagina, and the woman stands up, it assumes the same position as a flat pessary does, namely, a very oblique one. If the finger be passed into the vagina of a woman in the erect position whilst she is wearing a flat round pessary, the instrument will not be found lying horizontally, but very much sloped; its anterior margin will be felt low down behind the pubes, while the posterior rises high in the back of the vagina behind the cervix uteri. The ring, when introduced, assumes the same position, and while the posterior part of its periphery rises up behind the cervix, and offers resistance to the fundus if disposed to fall back, the cervix is permitted to pass through the wide ring, and descend to its proper position in the vagina. The uterus, previously straightened by the uterine stem, is thus kept in its natural form by this simple means. The ring may be removed at the end of six weeks or may remain longer, for it does not interfere with any of the functions of the vagina.

* Read in the Midwifery Section at the Annual Meeting of the British Medical Association in Plymouth, August 1871.

Since that paper was written in 1862, I have treated all cases of retroflexion of the uterus on the principles just mentioned and by the means which I have described, and the result has been in almost every case a radical cure. As an example, I will give some particulars of the last case of the kind that was under my care.

A lady, twenty-four years of age, married four years, the mother of one child, born twelve months after marriage, began to complain two years ago of pain in the back and in the hypogastrium, with a sensation of bearing down. These symptoms gradually increased in severity until at last she was scarcely able to walk, and defæcation was performed with great difficulty. On examination *per vaginam*, I found a complete retroflexion of the uterus with a very acute angle between the body and the cervix. The curve was so sharp that I was obliged to bend the uterine sound much beyond the usual curve before I could make it enter the body of the organ. By turning the sound the uterus was straightened, and the prominent tumour behind was completely removed. On withdrawing the sound, the fundus immediately came down, and the distortion was resumed. I told the lady the nature of her case, and that it would be necessary to introduce some instruments which she would wear for some time. Accordingly, on the 12th of last May, I proceeded to pass the stem pessary, but I found great difficulty in doing so, for the uterus was so confirmed in its bent condition that, the instant the sound was removed, and before the stem could be made to enter, the fundus flew back to its unnatural position. I succeeded at last by passing the stem alongside the sound while it remained in the uterus, and I then withdrew the sound, leaving the stem, which kept the uterus quite straight. The flat boxwood pessary was then inserted, and the lady was directed to remain in bed that day.

On coming the next day to see her, I found her so free from any inconvenience that she was unconscious of the presence of the instruments, and asked when I was going to introduce them. The instruments were perfectly in their place, and she was allowed to get up and go into the drawing-room, but not to go out. On the third day I again examined and found everything in its place, and she said she felt better than she had done for many months. The menstrual period was expected in ten days, and I cautioned her that she would probably find it more profuse than usual. This was the case; and it lasted a week and then went off. She used the syringe daily with a weak solution of sulphate of zinc and alum, and went out walking and driving with perfect freedom. On the first of July, the instruments having been then seven weeks *in situ*, I removed them, and found the uterus quite straight. I then passed the plain ring into the vagina, and she left town for the country the following day, and I have not heard of her since.

Subsequently to the publication of my proposal to treat retroflexion after this manner, Dr. Graily Hewitt, in his admirable work on the *Diseases of Women*, suggested a somewhat similar proceeding, using a stem of ivory, and supporting it with a ball of India-rubber, inflated after being passed into the vagina. This, no doubt, is a very good means, but I do not think it as simple as that which I have described; for Dr. Graily Hewitt says, "It is not advisable for the instrument to be worn longer than two or three days at a time, and after each removal the vaginal douche should be freely used." Now, this entails an amount of trouble and attention to the case which is not required in my plan, for, when once the proper sized flat pessary has been introduced, no further attention to the case is required until the time comes for taking all out, and then, the ring being placed *in situ*, the patient may go where she likes for six or eight weeks or longer.

INJURY TO THE AXILLARY ARTERY, CAUSING GANGRENE OF THE UPPER EXTREMITY.*

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INJURY of the axillary artery by forcible extension, without puncture or laceration of the integuments, is not a common accident. Three cases of it in gunnery practice have come to my knowledge; and, as their record may prove useful, I present them at this large professional assembly at one of the chief naval and military stations. They all occurred from explosions in the act of ramming home, by which the rammer was expelled, driving backwards the arm employed in loading.

CASE I.—J. F., aged 23, was injured in a battery before Sebastopol on April 9th, 1855. The thumb and forefinger of the left hand were

lacerated; the acromial end of the clavicle was luxated, its ligaments being torn; and the parts about the shoulder very soon became tumid. I first saw him on the 10th, within thirty hours of the accident. The thumb was in a state of sphacelus; the hand gangrenous. The forearm was insensible halfway to the elbow, but retained warmth downwards to that point; while emphysematous crackling was traceable up to the joint. The shoulder and parts to the mesial line above and below the clavicle were much swollen, with lividity along the anterior border of the axilla. No pulse could be discerned in the brachial or radial arteries. The outer end of the clavicle was raised up, but could be easily replaced by pushing it backwards, when it seemed to float up again at once. A tremor of uncertain pulsation was detected in the tumour; but the transmitted sounds were those of the first stage of pneumonia or a large crepitation, and not of a blood-current. Respirations 40; pulse 108; skin warm; tongue not foul; no sleep.

Third day.—Gangrene was extending up the inner side of the forearm; its veins were turgid. There was a large bulla above the wrist. Towards evening, there were anxiety of face and hard pulse. A whirling sound was thought to be detected deeply in the tumour. The sputa were bloody in dotted points, and non-vascular. Respirations 48, laboured; pulse 108, compressible.

Fourth day.—He was delirious in the night, but calm again in the morning. Emphysema extended to the inner side of the arm.

Fifth day.—The gangrene was not extending; there was no mark of its limit. He had increased cough and pneumonic signs.

Sixth day.—There were appearances of demarcation above the wrist. There was less anxiety. Pulse 98. He had evening exacerbation of fever and fits of cough, with blood-clots in tenacious sputa.

Seventh day.—Vesication and a sphacelated spot appeared above the inner condyle. Respirations 43; pulse 104; tongue dry at point.

Ninth day.—The forearm was in a state of complete sphacelation, and on that account it was taken away at the elbow. A small vessel required ligature at the posterior part. No pain was felt. Incisions were made into the emphysematous parts above the elbow. During the last few days, the axillary tumour had decreased somewhat, through decline of the superficial swelling.

Tenth day.—Pus appeared on the cut surfaces.

Eleventh day.—There were vesications in the axilla. Incisions made into it bled freely.

Twelfth day.—He was hectic and drowsy. A livid blush extended over the front of the chest. Deep incisions at the anterior border of the axilla gave exit to serous fluid mixed with pus and broken coagula, not of offensive odour. The swelling of the parts and the pain were diminished by this.

Thirteenth day.—There was some blood, but little pus, in the dressings. The gangrene was not extending. He had a hectic flush. Pulse very rapid; respirations hurried.

Fourteenth day.—There were vesications at the back of the shoulder, slight suppuration of the incisions, and granulations in the axilla. In the evening, the secretions were checked.

Fifteenth day.—Gangrene was extending. The shoulder and side of the chest were emphysematous. The pain suddenly ceased, and he died at 11 A.M.

Necropsy, six hours after death.—There was rapid decomposition of the corpse. Blood was extravasated in the adipose tissue and muscles of the pectoral region. The ribs and clavicle were sound. The acromial ligaments were ruptured. The shoulder-joint was unaffected. A large cavity of the size of a clenched fist, filled with broken-up coagulum, extended from the axilla inwards under the pectoral muscles and the clavicle; its walls were jagged and sloughy. The artery was pervious to an inch and a half below the clavicle; it was of small calibre, and filled with a well formed black clot. The vein was pervious for two inches, and then was contracted to a point; its walls were softened, and its lining coat blood-stained. Both vessels were lost in the sloughy mass that formed the posterior wall of the cavity. The brachial artery lay flattened and uncontracted, and its inner coat was blood-stained. The brachial vessels and nerves were matted together by infiltrated areolar tissue. There was no pleural effusion. The left lung was adherent at the upper lobe, which was condensed and heavy, and contained air with localised or lobular extravasations of blood, and a few gritty particles like obsolete tubercles. The lower lobe was natural.

REMARKS.—It was evident from the beginning that the axillary artery had been injured. When the patient came under my charge, gangrene had begun, and there was so much infiltration at the base of the neck as to annul the proposal to tie the subclavian at its inner third, amputate at the shoulder-joint, and clear out the cavity. The alternative was to

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