It is to be regretted that hitherto our investigations have been restricted to venous blood, the opportunities of examining arterial blood being rare indeed.

In the use I have made of the term anæmia, I wish it to be understood that it is intended to imply a diminution in the density of the blood, with pallor and debility, without any reference to its quantity, which may be either augmented or diminished.

ART. VIII.—*Cases of Excision of the Cervix Uteri for Carcinomatous Disease.* By J. Y. SIMPSON, M.D., F.R.S.E., Professor of Midwifery in the University of Edinburgh; President of the Edinburgh Obstetric Society, &c., &c.

[Read before the Dublin Obstetric Society.]

IN eight instances I have had occasion to perform excision of the cervix uteri. In three of these eight cases, the operation was had recourse to for the removal of excrescences, or morbid structures, possessed of a carcinomatous tendency and character. In the following remarks I propose to describe the more leading facts connected with these three cases, and the results of the operation adopted for their treatment. I shall append a few observations on the method I have followed in performing the operation, and on the cases of uterine disease that appear to be most adapted for its employment.

CASE I.—Between four and five years ago, I laid before the Medico-Chirurgical Society of Edinburgh some details of this case, and had an opportunity of shewing them the characters of the excised structures, while still in a recent state.

The patient, aged 33, weaned her fifth child in June, 1839. For about a month previous to that date, and during several months subsequently, there was a constant slight menorrhagic discharge present. She aborted in October, and afterwards the reddish vaginal discharge increased, was often mixed with

coagula of blood, and had an offensive smell. At times it lost so much of its red tint as to appear comparatively pale and watery. For some months before I saw the patient, the discharge was so profuse as to require the daily use of several napkins. Twice there occurred alarming hæmorrhage without any obvious exciting cause. There was no local uterine pain or uneasiness. By the time I first visited the patient with Dr. Lewins in May, 1840 (eleven months after the discharge first appeared), she had become greatly weakened and reduced. Her face was pale and anemic, and she was occasionally obliged to keep her bed, in consequence of debility and exhaustion.

On making a vaginal examination, Dr. Lewins and I found a tumour, the size of a small pear, attached to the whole posterior lip of the os uteri; its basis of attachment was very broad; its surface was of a strawberry colour, rough, granulated, and fissured; it was insensible to touch; but the superficial vessels upon it bled freely under slight pressure or abrasion with the finger or speculum.

On the 25th May, 1840, I excised the whole vaginal portion of the cervix uteri, with the tumour attached to it. In order to secure its complete removal, and insure that my incision was, if practicable, through healthy tissue, and above the seat of the morbid degeneration, I divided the cervix as high up as the reflection of the vagina would permit, and even removed at one point a line or two of the reflected mucous membrane of that part. The excrescence measured $2\frac{3}{4}$ inches at its broadest part, and $2\frac{1}{4}$ in its greatest depth (see Plate I. Figs. 1, 2). After the tumour was steeped in a strong alcoholic solution of corrosive sublimate, its section presented to the touch and sight an appearance greatly resembling that of brain hardened by the same menstruum. It was microscopically examined by Mr. Goodsir, and found to present a nucleolated cellular structure, but no condyloid or spindle-shaped bodies were observed in it.

The patient recovered rapidly from the operation. The morbid discharge, from which she suffered so much, ceased from the date of the removal of the tumour; and, when I last reported the case (see *Edinburgh Medical and Surgical Journal*, No. 146), in November, 1840, she was advanced several months in pregnancy. In commenting at that time upon the operation and its probable results, I ventured to make the following remarks :

“ In the case which I have reported, I undertook the amputation of the diseased part with strong doubts as to its ultimate success. The patient's peace of mind was broken, and her constitution was so rapidly giving way under the constant, profuse, and weakening discharges which afflicted her, that she would, in all probability, have soon sunk under them.

“ Immediately after the operation was performed, these discharges completely ceased, and have never since returned. Her health and strength have been in the meantime restored to her, and she is, at the present moment, advanced beyond the middle period of pregnancy. The morbid characters of the diseased structures that I removed, are such, certainly, as to render its future regeneration not at all improbable, but as yet there are no local appearances of its return; and, taking the very worst view of the case, there seems to be no reasonable doubt but that the operation has restored the bodily comfort, and prolonged the life of the patient, if it has not entirely freed her from the risk of a future return of the disease.”

My most sanguine expectations regarding the case have been more than realized by its subsequent history. Since the date of the operation, May 22nd, 1840, the patient has been three times pregnant, and given birth to three children, all of them now alive and well, viz., the first, born on the 14th of February, 1841(*a*), the second on the 18th of May, 1843, and the third on the 19th of April, 1845.

(*a*) See an account of the first labour after the excision of the cervix uteri, with some interesting remarks upon the operation, by Dr. Lewins, Jun., in the *Edinburgh*

When I lately saw her (10th August, 1846), still nursing this third child, now nearly fifteen months old, she declared to me that she never had enjoyed, in all respects, better health than at present.

On examination I found the os uteri presenting an indentation or fossa resembling the fossa of the umbilicus, instead of the usual nipple-like projection of the cervix.

CASE II.—In the autumn of 1843 I was called to Kincardine, Clackmannanshire, to see this case. It was under the care of Dr. Wilson, now of Edinburgh, and who was then practising at Kincardine. The patient, aged 40, had been eight years a widow. She had been previously married eleven years, and borne five living children. After suffering for some time under considerable leucorrhœa and pain in the back, the symptoms increased much in intensity about the beginning of August, 1843 (six or seven weeks before I first saw her). The discharge then assumed a more watery character, and imparted an excoriating burning feeling to the parts as it passed. It was augmented very greatly in quantity, especially in the erect posture, and was generally mixed with blood under the slight straining efforts required to empty the bladder and rectum. After this watery “boiling discharge” (as the patient herself termed it) had lasted profusely for about a fortnight, severe hæmorrhage came on. It was kept under imperfect restraint by the supine posture, &c., for the next few days, when, at the return of the normal catamenial period, great flooding supervened, and, in despite of the use of cold astringents, the plug, and other active and appropriate measures, much blood was lost. The patient, though naturally a very strong and robust woman, was, in consequence, soon reduced to such an extreme state of anemic weakness and exhaustion, that she required to be lifted with sheets when they ventured, from time to time, to get her bed

Medical and Surgical Journal, No. 147. The os uteri was very rigid, and dilated with difficulty. Her two subsequent labours have been much easier.

made dry, and she became sick and faint whenever her head was attempted to be raised. I saw her at this time, with Dr. Wilson and other practitioners of the neighbourhood. On cautiously removing the vaginal plug, I found the posterior lip of the os uteri enlarged, indurated, and roughened, and the surface of it and of the anterior lip the seat of ulceration of an apparently malignant kind. The base, however, of the cervix appeared so far free from disease as to allow the possibility of the excision of the parts above the line of the morbid structure. Two days afterwards, viz., on the 13th of September, I accordingly excised the whole cervix uteri. Dr. Wilson, Dr. Girdwood of London, Dr. Adamson, and Mr. Crawford, were present.

The excised mass measured about an inch and a-half in diameter at its base, and the incision through the cervix uteri passed, apparently at all points, through a healthy structure. In other words, the line of incision was above the seat of disease, and, consequently, the whole diseased tissue seemed removed. The posterior lip of the cervix was enlarged, in the form of a tumour, to the size of a pigeon's egg, and roughish and tuberculated upon its surface (See Plate II. Figs. 1, 2). The base of the tumour found upon the posterior lip, and some part of the unenlarged anterior lip, were the seat of ulceration, marked by an acute sharp edge. The diseased structure of the posterior lip slightly passed the angle or commissure of the left side, and partially invaded the anterior lip. Dr. Anderson, Professor of Medicine in the Andersonian University, Glasgow, and an excellent morphological anatomist, kindly examined for me a section taken from the enlarged posterior lip. Its structure was found by Dr. Anderson to present, in a well-marked degree, all the usual microscopic and anatomical characters of Müller's *Carcinoma fasciculatum*.

After the excision of the diseased structures the lumbar pains and local watery and hæmorrhagic discharges entirely ceased. Pus was secreted for some days from the surface of

the wound. The patient rallied so speedily in health and strength, that within a fortnight she was able to be taken into the garden. For two months subsequently she did not menstruate, but afterwards the catamenial discharge occurred regularly, accompanied with dysmenorrhœal symptoms. A year after the operation I visited my patient, when I happened to be in the neighbourhood, and found her in excellent health, busily employed in active and fatiguing duties, and again ruddy and florid in complexion. On examination the os uteri felt firm and puckered, like the cicatrix of a common stump upon a small scale.

I had a letter from this patient a few months ago, in which she says :

“ I am happy to state to you that I enjoy the best of good health. The monthly period is regular and right. I have no pain or uneasiness in the stomach.”

In a communication of a later date, (15th August, 1846), the same favourable report is, in all respects, confirmed.

CASE III.—The subject of this case was a patient of Dr. Paterson of Leith. I am principally indebted for the notes of it to Dr. Jackson, who, along with Dr. Paterson, watched over the poor woman with great care and kindness.

The patient, aged 36, had been twice married, and had borne two children to her first husband. She had been married a second time for six years without having any family. During her first marriage she had contracted syphilis from her husband, and it was nearly two years before she entirely recovered from it.

For a long time previously to her seeking medical advice, she had laboured under menorrhagia and leucorrhœa. Four months before I first saw her, there was a great increase of the leucorrhœa, and the discharge assumed an offensive smell. After being under treatment for some weeks for this aggravated leucorrhœa, menorrhagia supervened about the middle of June, 1844, recurring to a considerable amount every three or four days. The discharge sometimes changed from a red

and clotted appearance to a dark brown colour, and more fluid consistence.

I now quote Dr. Jackson's notes of the case :

“ In the beginning of August, on examination *per vaginam*, I discovered a tumour or excrescence, about the size of a large walnut, attached to the anterior lip of the os uteri. It had a rough, warty, softish feel, and bled on being touched.

“ Soon after this the discharge increased, amounting to nearly what we see in severe flooding after delivery. The plug was introduced, and had the effect of arresting it. On the withdrawal of the plug a few days afterwards, a discharge of clear, watery fluid commenced, and continued for some days in large quantity. The patient now began to lose colour and strength ; by and by the pulse sank, and long and protracted faintings took place. At this time (13th August, 1844) Professor Simpson saw the case, and it was agreed to excise the cervix uteri and attached tumour as soon as arrangements could be made. This was accordingly done on the 16th.

“ The patient bore the operation well ; simple laxative medicines were given, the vagina frequently washed out with tepid water, and an occasional anodyne exhibited. The only unfavourable symptoms that followed the operation were thirst and vomiting. For a time these were very distressing, but soon disappeared ; and subsequently, under the use of tonics, the patient regained her usual health and strength, menstruating regularly, and during the intervals had only a slight whitish discharge at times.

“ In the commencement of April in the following year (1845), eight months after the operation, I again,” Dr. Jackson continues, “ saw the patient, who informed me she still was well, and continued as when last described.

“ This happy state did not last long, for on the end of the same month there was a sudden and violent discharge of blood from the uterus, demanding the immediate use of the plug. This kind of discharge took place occasionally during the next few months ; and in the intervals there supervened a

discharge of greenish and clear-coloured fluid, having an offensive smell. This discharge increased and continued in very great quantity till the day of her death, 24th October, 1845, fourteen months after the operation.

“The amount (Dr. Jackson adds) of this clear-coloured discharge, may be fancied, when I state that her linen and lower bed clothes used to be soaked three or four times a day. Many remedies were tried in vain, and examination *per vaginam* discovered the cut surface of the neck of the uterus amidst much softening of the neighbouring parts, all of which felt covered with a thick mucus.

“During the continuance of the discharge, and about three months before her death, she had a severe attack of anasarca, with a great loathing of food, and vomiting, and complained of dull and obscure pain in the lower part of the abdomen. The œdema, however, yielded to treatment, but again returned a fortnight previous to her death; and she apparently sank ultimately under pure exhaustion from the excess of the discharge.”

The excrescence which I removed in the preceding case, was of an oval form, and nearly the size of a small peach. It was slightly irregular and lobulated on its inferior or free surface, and on more narrow examination this surface presented a small granulated appearance. The line of incision by which it was removed seemed to pass through healthy tissue. On microscopic examination, Dr. Anderson found the structure of the tumour to present all the characters of Müller's *Carcinoma reticulare*.

On inspecting the body of the patient after death, Drs. Paterson and Jackson could not detect any traces of disease in any part except the pelvis. The body and fundus of the uterus were slightly enlarged; and in several places its peritonæal coat was strongly united to the Fallopian tubes, and the neighbouring serous surfaces, by old false membranes. The site of the excised cervix uteri, the upper portion of the vagina, and the

cellular substance intervening between these points, and the bladder and rectum, were the seat of pultaceous softening and ulceration, but there was little or no thickening or actual morbid deposit in these parts. Dr. Anderson examined microscopically the structure of the uterus at the seat of excision and ulceration, but could discover no decided marks of *carcinoma reticulare*, or other specific form of malignant structure in the tissues of the part. From the softened condition of the affected textures, it was found impossible to ascertain, at the time of the autopsy, whether the degeneration and ulceration extended, or not, through the recto-vaginal septum into the rectum itself.

METHOD OF OPERATING ; COMPLICATIONS AND CONSEQUENCES.

In performing the excision of the cervix uteri, in the three instances I have detailed, and in the other cases in which I have operated, I have proceeded on the following plan:—I have fixed one or two vulsella into the outer or vaginal side of the diseased cervix, as high as it was possible to insert them, and, by the purchase which they afforded, have gradually and cautiously dragged this part down in the lines respectively of the axis of the pelvic brim, cavity, and outlet, till it appeared so far beyond the vulva as to allow me to cut through the base of the protruding cervix. In one or two cases I used a knife in making the incisions. But in consequence of the powerful retraction under which the cervix uteri is placed during the operation, it is difficult, or indeed impossible, to make the incision in this way so equable and perfect as to remove with certainty all the diseased part. After a partial cut or two the uterus is strongly retracted at the points of incision, and the remainder of the operation requires to be finished with the line of incision thus rendered irregular and confused. A pair of large, curved, blunt-pointed scissors, such as were used in this operation by Oslander and Dupuytren, is in this respect preferable. We are enabled by them to surround and embrace

the whole cervix at once; and having cautiously and carefully adjusted their edges to the very points which we wish to divide, and thus calculated, at this preliminary step, the exact limits of the incision, we may then immediately complete the amputation of the part, by one or two strong and rapid strokes of the instrument. The blades must be placed around the cervix, *above* the line of the teeth of the vulsellum; and then our object is (is as it were) to cut out the vulsellum along with the whole inferior and diseased part of the cervix, in which it is fixed. The operation is much facilitated by the labia being strongly pressed aside by broad copper spatulæ.

I have always placed my patients upon the face, the body being situated across the bed, and the lower extremities hanging over it, as in the operation for hæmorrhoids. We are thus enabled to make our incision through the cervix uteri from behind forwards, instead of from before backwards,—a matter, in my opinion, of no small moment. For if we cut in this latter direction, viz., from *before backwards*, we would sometimes run a greater danger of opening into the peritonæum, which stretches downwards so much more behind than in front of the cervix uteri, and offers a very thin wall of partition between the cavity of the vagina and the cavity of the abdomen. Latterly, I have found the first portion of the operation, namely, the seizure and traction of the cervix uteri, much facilitated by using a very large and strong vulsellum, made with the common loose joint of the obstetric forceps, instead of the usual fixed pivot or scissors joint. With the common scissors-jointed vulsellum, whilst we are intent on fixing the teeth of one blade in a proper situation, the teeth of the other blade are always apt to become entangled in the tumour or walls of the vagina itself, and thus impede and embarrass the operator. But with the modification of the vulsellum that I have alluded to this difficulty is avoided, for the individual blades are introduced, adjusted, and fixed, separately and successively; and then, afterwards, they are easily united together for further use. Besides in this way, we

far more readily effect what are, I believe, the two principal secrets in the operation, viz., 1st.: We fix both blades of the instrument, and more especially that corresponding to the diseased lip, as high upon the cervix, and as near its line of reflection upon the roof of the vagina as possible; and 2ndly, by making our line of incision immediately above the hold of the vulsellum (as if our object were to cut out that instrument and the part which it embraces), we secure this important point, that the incision which we make is more likely, than if we followed any other plan, to pass through a stratum of healthy tissue, as we thus inevitably remove the whole vaginal portion of the cervix uteri, and the diseased structure of which it is the seat. In thus attempting to insert the vulsellum as high as possible in the cervix, we will succeed far better by guiding it directly to the point required by the finger and the sense of touch, than by attempting to direct it by the speculum and the sense of sight. In fact, if the cervix is, as generally happens, at all much increased in size, it is, of necessity, utterly impossible to see, with any speculum, the part in which the teeth of the vulsellum should be fixed,—that part lying much higher than the sphere of vision.

Several forms of danger have been found to attend upon excision of the cervix uteri. A fearful variety of nervous depression is alleged by some authors to supervene occasionally upon the operation. I have seen no instance of it. Severe hæmorrhage sometimes occurs, but it is much rarer than we might *a priori* expect. In only one case have I met with it in any considerable amount, and in that instance it was readily and effectually restrained by the plug. Out of nineteen private patients operated on by Lisfranc, Pauly avers that four died within twenty-four hours. Subsequently there is further danger to the patient from inflammation kindling up in some of the uterine structures, or in the peritonæum itself. Out of the eight cases in which I have operated, seven recovered perfectly. The remaining eighth patient recovered so far as to leave her

bed-room, but was then, from an unfortunate domestic quarrel, subjected to great mental excitement, after which she relapsed, and died under symptoms resembling those of phlebitis. In his *Operative Medicine*, Velpeau, after stating that he had himself only operated in two cases, in one of which death occurred in three days, and in the other six weeks after the excision of the cervix, proceeds to remark: "A patient operated upon by M. Blandin died of uterine phlebitis; one of those that Lisfranc lost was carried off by peritonitis; others have sunk under a nervous state, the gravity of which it is not easy to explain. Up to the present time," he continues, "scarcely any one has been seen to die directly of hæmorrhage. Rust and Graefe of Berlin, Roux and Dupuytren, who have all seen their patients perish from the immediate results of the operation, do not ascribe the fatal result to this complication (hæmorrhage). Excision of the neck of the uterus, although easy and by no means severe, is nevertheless sometimes extremely dangerous and speedily fatal. However, Osiander has practised it twenty-eight times, Dupuytren fifteen to twenty times, and Lisfranc forty to fifty times, without it having caused death more than once out of every six or seven operated upon"(a).

CASES ADAPTED FOR THE OPERATION.

Since excision of the cervix uteri is an operation attended with so many chances of danger, as Velpeau exposes in the passage which I have quoted, it evidently follows that it should only be adopted in cases, and under circumstances, in which milder and safer means of cure are insufficient. The forms of disease in which, upon this principle, it seems justifiable to avail ourselves of the aid of this operation (supposing no contra-indication to be present), are, in my opinion, principally:

1st. Great morbid hypertrophy, by elongation, of the vaginal

portion of the cervix uteri. I have operated successfully in two such cases.

2nd. Corroding ulcer, when limited to the lips of the cervix, and pathologically identical with the form of lupus or malignant ulcer so well known on the face; and

3rd. Circumscribed and local forms of carcinomatous disease or excrescence, of the lips and lower segment of the cervix uteri.

Some continental surgeons, and more especially Lisfranc, advocate the propriety and necessity of excision, in various other cases besides those I have just enumerated. I have myself twice excised the part when affected by chronic induration and thickening, without carcinomatous degeneration; but I would now, most assuredly, by no means resort to it again under the same condition, as I believe that morbid state of the cervix to be quite removable by milder measures. In the case that I have alluded to as having terminated fatally, the structure of the excised cervix presented a great degree of condensation and induration, with two small cystic tumours enclosed in the morbid tissue. The symptoms attendant on this lesion had been of very long standing, and had previously broken down the health of the patient.

Certainly, however, the set of cases in which, of all others, the operation is likely to prove an occasional and important addition to our previous means of treatment, is that in which there exists local carcinoma of the cervix uteri.

Every practitioner knows that, of all uterine diseases, cancer is the one which the female mind most constantly and most justly dreads. A patient scarcely ever suffers for a length of time under any severe affection of the uterus, without her own anxieties and fears magnifying it into an instance of cancer, and investing it with all the horrors pertaining to this most fearful and loathsome malady. And certainly it is a disease which does occur sufficiently often. The female constitution

seems much more disposed than the male, to assume the carcinomatous diathesis; and the absolute number of deaths from cancer, as recorded in our own and other mortality bills, is in the proportion of two or three females for every one male that sinks under this specific form of morbid action(a). Some pathologists, besides, as Tanchou, Stern, and others, believe that cancer of the uterus is becoming much more frequent at the present time than it was formerly. Be this the fact or not, there can be no doubt of this other circumstance, that in consequence of the more advanced knowledge of the diagnosis and pathology of uterine diseases, the practitioner has now ample means of separating and distinguishing at once from carcinoma, various forms of uterine affection that were, not long ago, generally looked upon as doubtful or decided instances of uterine cancer, and consequently regarded with all the utter hopelessness of despair.

Fibrous tumours of the uterus, for instance, (one very common form of structural disease in this organ), were formerly very frequently confounded with cancer, but it is now well known that they have a different anatomical seat, a different pathological course, and a very different morbid termination.

I have known a patient supposed to be labouring under

(a) As a statistical illustration of the truth of this remark I may adduce the proportion of fatal cases of cancer in the two sexes, reported by the Registrar-General as having occurred in England (excluding the metropolis) during the first five full years in which the Registration Act has been in operation.

Mortality from Cancer in England, as regulated by Sex.

Year of Report.	Total fatal Cases of Cancer.	In the Female Sex.	In the Male Sex.
1838	2304	1717	587
1839	2549	1924	625
1840	2238	1656	582
1841	2215	1692	523
1842	2356	1757	599
Total,	11662	8746	2916

irremediable cancer of the uterus, when the disease was only a severe but remediable form of polypus. The accompanying symptoms are often very much alike in the two diseases up to the character of the discharges. "The factor of the discharges in polypus," observes Sir C. Clarke, "induces in the mind of the patient, and sometimes of the practitioner, a belief that the disease is cancer, and this is confirmed by the sickness which generally attends the disease." Sanson and Roche tell us that they have repeatedly (to quote their own words) "seen Dupuytren perform the removal of polypi, which various of the most able surgeons of the French capital had mistaken for uterine cancer, and thus render back to life patients condemned to a most certain death by those mistakes of which they had been the subject."

Various other forms of uterine disease are liable to be mistaken for cancer of this organ. In one of the first cases in which I recognized by the uterine bougie the existence of retroflexion of the unimpregnated uterus, the patient had some years previously been doomed by the highest obstetric and pathological authorities in England, as suffering under the first stage of scirrhus uteri,—the displaced fundus of the retroverted organ having been mistaken for a carcinomatous tumour. The uterine displacement was easily rectified by the use of a wire pessary worn for some months in the uterine cavity, and the patient is now in the enjoyment of the best of health. I have seen other cases of the same mistake, with this same curious but common form of uterine displacement.

Two varieties of an inflammatory (and hence of a curable form of disease), are certainly not unfrequently confounded with cancer uteri. I have now seen four cases in which patients had been condemned, as afflicted with cancer uteri, and who had each indurated, irregular tumours of the pelvis, formed by effusion of coagulable lymph, or pus, or both, into the cellular tissue situated around the cervix uteri, and forming hard, firm swellings in that locality, in consequence of the inflammatory depo-

sit of which they consisted lying above the dense pelvic fascia of this part. All of these cases have perfectly recovered, and two of the patients have borne children since the attack. The second form of inflammatory disease, which is liable to be mistaken for cancer, consists of inflammatory induration, and often ulceration, of the proper tissues of the cervix uteri. I have now had occasion to see no small number of instances, in which this chronic inflammatory affection of the cervix uteri has been confounded with cancer of the part, and where the non-carcinomatous character of the disease has ultimately been established by the ulceration and induration totally disappearing under appropriate local treatment(*a*).

In any case, then, of suspected cancer uteri, and where, as often happens, the local and constitutional symptoms are such as are usually described as accompanying that affection (as local pains, sanguineous and morbid discharges, general cachexia, &c.), we have always hope that a careful physical diagnosis will disclose the local disease to be one or other of those more safe and more curable forms of morbid action that I have above adverted to. And let me here add, at the same time, that as a general rule, I believe it utterly impossible to make, with any certainty, such a diagnosis by the mere rational or external symptoms only, such as the nature of the discharges, the

(*a*) Dr. Valentine Mott, the distinguished American surgeon, in the account which he published at New York, in 1842, of his "Travels in Europe and the East," inadvertently states a fact which, to every one conversant with uterine pathology, must abundantly prove, that in most cases in which Lisfranc of Paris performed excision of the cervix uteri, the operation was undertaken for simple *inflammatory* induration and ulceration of the amputated part. For after mentioning Lisfranc in very laudatory terms, Dr. Mott observes, "I am delighted to have it in my power to say, that in one of my visits, by express invitation, to examine a great many cases of a peculiar and distressing malady of the female sex, for which he had performed in previous years more than sixty operations—exsection of the neck of the uterus—he now stated to me that he readily effected a cure by a much more simple and less painful process; a fact highly honourable, I consider, to his humanity, and denoting clearly the advancing march of surgical science. *His remedy* (Dr. Mott simply adds) *is merely the application of lunar caustic to the part affected.*"—(*Travels, &c.*, p. 38)

degree and character of the attendant pains, &c.; for in practice we constantly meet with uterine cases having all these symptoms well developed, without the local disease being carcinomatous; and, on the other hand, we occasionally meet with cancer of the uterus without these symptoms being present in any very marked or appreciable degree. In this, as in most other uterine affections, "the true character of the disease can *only* (as was many years ago most justly observed by Sir Charles Clarke) be ascertained by an examination."

But the question again recurs to us, supposing that we do discover, by a proper physical diagnosis, that true carcinoma of the uterus is present, is the case consequently to be looked upon as always utterly hopeless?

I believe that in forty-nine instances out of every fifty in which we find the uterus or any part of it, the seat of true carcinomatous deposit, the disease inevitably leads, sooner or later, to a fatal termination. The rapidity of its march is various, and may deceive an incautious observer by its duration. I have known death occur a few weeks after the disease first attracted the special attention of the patient; and I have had occasion to watch the course of a case, where the patient dragged on a miserable existence for seven years after the first discovery of the malady by the late Dr. Hamilton. But whilst thus fatal in almost every instance, there are still, as we have already seen, some rare varieties or forms of carcinoma uteri, that are apparently within the just range of surgical treatment. And *one* condition favouring this is the generally admitted fact, that the disease almost always begins in, and, for a time, is limited to the structure of the lips and cervix of the uterus. Professor Rokitsansky, of Vienna, perhaps the most profound and experienced morbid anatomist of the present day, in speaking of the first locality and origin of cancer of the uterus, observes: "Carcinomatous induration generally limits itself to the vaginal portion and cervix, and very often in a defined and sharp manner (*'mit einer sehr bezeichnenden weise und schärfe'*)." In another

paragraph he remarks: "The primitive seat of cancer is always the cervix uteri, and first of all and particularly the vaginal portion. The primary appearance of cancer in the fundus uteri is limited to so extremely rare cases, that what we have just said remains one of the most fixed rules (*'eine der ausgemachtesten regeln'*)."

"It forms," he adds, "in this respect a contrast with fibrous and tuberculous tumours of the uterus, a contrast which also holds with regard to its involving the parts around, and its ulcerative destruction(a)."

In relation to the same question, we must bear in recollection *another* circumstance in the natural history of carcinoma uteri, granted by most of the best pathologists who have written upon this disease. "Uterine cancer," observes Professor Walshe, one of the latest and most learned writers on the subject, "is commonly primary and possessed of comparatively slight tendency to contaminate the system generally." And again: "There can be no question that the womb ranks among those organs less prone than certain others, as, for instance, the mammæ and testes, to contaminate distant viscera. Among thirty-seven females, cut off by uterine cancer, and examined by M. Ferrius, seven only exhibited secondary formations elsewhere"(b).

In these two important respects, therefore, uterine carcinoma presents conditions favourable for surgical interference. Still, however, in order that a case may offer any chance of operative success, several conditions seem requisite:—

1st. The disease must be in an early stage.

2nd. The morbid structure must be strictly limited to the lip or lips of the cervix, or at all events be *distinctly* situated below the line of reflection of the vagina upon the cervix uteri.

In actual practice, however, it rarely indeed happens that the above combination of circumstances is met with, because, in truth, the medical attendant is very seldom called in till the

(a) *Handbuch der Pathologischen Anatomie*, vol. iii. pp. 551, 552.

(b) *On the Nature and Treatment of Cancer*. London, 1846, p. 443.

disease is so far advanced as to have passed the limits in question. In fact cancer uteri generally proceeds throughout its first stage of deposition and induration with such slow and stealthy steps, that the attention of the patient is not awakened to its presence by any particular local symptoms; and it is commonly not till the malady is advancing or has advanced towards its higher states of morbid development and disintegration, that a sudden and unaccountable loss of blood, or the unexpected appearance of some purulent or sanious discharge, or the supervention of uterine pain, first rouses the lurking suspicions of the sufferer to the nature of the fearful fate that is impending over her.

3rd. Future inquiry will in all probability prove that there are some varieties, types, or *species* of carcinoma of the cervix uteri which are much more within the pale of surgical treatment than others. I believe this last to be a most important subject of inquiry; but it is confessedly a department of uterine pathology to which (valuable as its results may be) no labourer has as yet directed his attention.

The three different cases which I have detailed present three different species or forms of carcinoma of this part. Though the materials which these three cases furnish afford a very meagre and imperfect nucleus for such an inquiry as I suggest, still they are neither without interest nor importance; and in this point of view I will here venture, in conclusion, to recapitulate the principal pathological and practical data which they seem to supply.

In the first case which I have described, the excised morbid mass had all the usual characters of cauliflower excrescence, a disease which, in its ultimate course, always takes on malignant action, whatever difference of opinion may exist as to its pathological nature in the incipient stages. The tumour removed from the second patient was an example, as I have already stated, of Muller's *carcinoma fasciculatum*; and that

Case 2.

FIG. 1

Tumour attached to posterior lip, Anterior lip ulcerated

FIG. 2.

Excised Cervix Uteri & Tumour seen from above.

Case I.

FIG. 1

Excised Cervix Uteri & attached Tumour seen from above

FIG. 2

Lower or Vaginal surface of the Tumour.

from the third, was an equally characteristic specimen of the *carcinoma reticulare* of the same author.

Every pathologist will, I believe, readily grant that these are forms of malignant structure regarding the true carcinomatous nature of which there can be no rational doubt. All the three patients were extremely sunk, and prostrated by the attendant discharges, before I had recourse to the excision of the cervix uteri and the morbid excrescences attached to it. All the three were so far benefited by the operation as to recover their usual health and strength, and be again able for the duties of life. But in the last case the disease recurred after eight months of comparative health; and after fourteen months it terminated fatally. The other two patients still remain in the enjoyment of perfect health, although in one instance upwards of six, and in the other about three years, have elapsed since the period of the operation. And, as I have already stated, the first of the patients has now conceived, borne, and nursed three children since the date of the excision of the diseased parts—a sufficient proof both of the completeness of her own recovery, and of the safety of the operation, so far as regards the primary and most important of the physiological actions of the organ operated upon.

EXPLANATION OF THE PLATES.

PLATE I.—Two figures of the excised cervix uteri and attached tumour in Case I.

Figure 1.—*a a* Probe passed through the cavity of the os and cervix uteri; *b* anterior lip of the uterus; *c* posterior lip; *d d* line of incision by which the cervix uteri was removed; *e e e* rough surface of the tumour attached to the posterior lip.

Figure 2.—*a a* Under surface of the tumour; *b b* portions lacerated by the vulsellum.

PLATE II.—Two figures of the excised cervix uteri and attached tumour, in Case II.

Figure 1.—*a a* Picce of whalebone passed through the

cavity of the os and cervix uteri; *b b* tumour attached to the posterior lip; *c* anterior lip of cervix uteri; *d d* edges of the anterior lip.

Figure 2.—*a a* Piece of whalebone passed through the cavity of the os and cervix uteri; *b* tumour attached to the posterior lip; *c c* line of incision by which the cervix uteri was removed.

ART. IX.—*Cases of Popliteal Aneurism cured by Compression of the Femoral Artery, with Remarks.* By J. M. O'FERRALL, M.D., M.R.I.A., Fellow of the Royal College of Surgeons, V. P. of the Pathological Society, and First Medical Adviser to St. Vincent's Hospital.

Popliteal aneurism; compression at different parts of the artery; cure in thirty-three days.—A labourer in the Ballast department, named Cullen, thirty-two years of age, and of a healthy, brown complexion, was admitted into St. Vincent's Hospital in June, 1845. The report of that date states that he is married, and has three children, all of whom are healthy. He has always enjoyed good health, although he was formerly very intemperate in the use of ardent spirits. For the last five years, however, he has been a strict member of the Temperance Society.

Three weeks ago, while in the act of raising a heavy stone, he felt something break in his left ham. For some time subsequently he experienced no inconvenience, except a little stiffness in the joint, which was always removed by exercise. Three days ago he perceived a pulsating swelling in the ham; this gave him a shock, and he has been nervous about it since.

The following was the condition of the parts on admission: The left popliteal space was filled by a large, visibly pulsating tumour; the expansion of which is felt laterally between the tendons of the hamstring muscles. A very slight pressure