CASE OF LACERATION OF THE VAGINA AND UTERUS,

REPORTED BY MR. THOMAS MORLEY ROOKE:

WITH REMARKS AND THE SUBSTANCE OF A CLINICAL LECTURE

By JOHN C. W. LEVER, M.D., Physician-Accoucheur to Guy's Hospital.

CASE. S. B., ætat. 28, is a married woman, and has been so for six years. She has had three children; she was confined of the first, ten months after marriage; it was still born; the labour was lingering, but she recovered well. The second child was born at the end of about another year, and lived fourteen months; and the third, a boy, after about the same period. He is still living, and is a healthy child, about two years and eight months old. She has not since given birth to any child up to the present time, and has never had any abortion. Her last confinement was more lingering than the previous one, where the child was a girl. She is a woman of rather short stature, fair, and of tolerably florid complexion. Her husband is a labourer, and she follows the occupation of a sempstress; but for the last few months she has had little to do, and in consequence of her husband being frequently out of employment, she has not lived well, eating chiefly fish in the way of animal food. She has never had any serious illness, but is now pregnant with her fourth child; and, for the last ten months, has complained of a severe dragging pain in the abdomen and back, to which, however, she has not attached the slightest importance, and, when requested to have advice, she has been averse to it.

At a quarter before three, A.M., on the 16th, I arrived at her house, having been summoned to attend her in labour, and seeing her then for the first time. I found her laid on the bed, with severe expulsive labour-pains. On inquiry, I understood that the membranes had ruptured half an hour previously, that she had had vigorous bearing-down pains since one o'clock A.M., and that the first stage of labour had been going on all the previous day. On examination, *per vaginam*, I found the os uteri fully dilated, and the head presenting at the upper part of the vagina, and looking backwards towards the sacrum. Under the pains it rapidly made the turn of the axis, and appeared in about half an hour in the cavity of the pelvis, in the first position. A short time before my arrival, she had both defæcated and passed urine. The pains continued at intervals of every two or three minutes, and there seemed, at first, every probability of a speedy termination of the labour; the pains were now not only strong and straining, but seemed almost of an agonizing and torturing character—at least I thought more so than I had hitherto witnessed in my limited experience. The head advanced somewhat further during the next half-hour, so that the scalpy tumour which had formed on the head of the child could be felt little more than half an inch within the labia, and the soft parts became all freely dilated. The pulse was now full and quick; a small quantity of fæces was squeezed out of the rectum during the advance of the head; but from this time, the head seemed to make no progress, though the pains continued in nearly full force. On several times examining, during the next two or three hours, I could detect no advance of the head during the accession of a pain, or recession of the head during the decline and intervals

of pain; it seemed very firmly fixed between the bones of the pelvis. About seven o'clock, A.M., the woman rather suddenly complained of a peculiar pain, unlike anything which, she said, she had ever felt before; she described it as a severe scalding or burning pain in her belly, extending up to her chest. This (by no means unimportant, when taken in conjunction with the after symptoms) considerably impressed me at the time, though not in the greatest degree, as we frequently hear women complain during labour of sudden peculiar pains, which, they say, they have never before experienced, but which do not prove to have any serious connexion. The pains, however, continued; but from this time, or a little before, they began to occur less frequently, though still of considerable force; they perhaps now occurred (*i. e.*, during the first half-hour of the decline) every five or six minutes, instead of every three. At the same time, the pulse, I thought, began to get smaller and quicker; and, on making a vaginal examination, the finger was smeared with blood, not, however, more than was to be accounted for. I now became more impressed than ever, that this was no common case; and at half-past seven, sent a note to Mr. Assaid requesting his attendance, briefly stating the character of the labour, viz., the time it had lasted, the great severity of the pains, followed by their decline, and, from some cause, the appearance of exhaustion commencing in the patient; and that I considered the chief peculiarity consisted in the immobility of the head during the pains. Mr. Assaid arrived about a quarter past eight, when I detailed to him the particulars; he instituted an examination, and considered the pelvis of tolerable dimensions, and the head of the child of normal size. For the last half-hour before he arrived, the pains had rapidly subsided, and were now all but gone, and the patient remained much more quiet; she had vomited five or six ounces of a dark greenish liquid. Mr. Assaid considered that, after all, nature would be found equal to the expulsion; that the present condition was one of uterine inertia, and that, if temporarily stimulated by the administration of secale cornutum, nature might resume her powers, and labour be completed. At any rate, it was better to make the trial before having recourse to instrumental aid, especially as she had not been long in labour, and had already become the mother of three full-grown children, born by natural efforts; at the same time, he was of opinion, that if symptoms of exhaustion continued, brandy should be judiciously administered. Accordingly, thirty minims of the ethereal tincture of ergot were given; this produced a few sharp pains, but they did not continue; a second dose was administered at the end of half an hour, but this produced no effect, and she immediately vomited a large quantity (perhaps a pint) of dark grumous fluid; she complained of thirst, and was supplied with tea, and brandy with it. In another half-hour, she again vomited the same quantity, and was given some more brandy; this was about ten o'clock; exhaustion, however, was not then very great. At her request, she was allowed to get up, and, with assistance, took a turn or two in the room; she laid down again, and now exhaustion rapidly increased. She began to complain of dimness of sight, and of seeing objects double.

In the interval, Mr. Pettigrew had been applied to by Mr. Assaid, and he soon arrived. He considered it a case of laceration of the womb, or

of the parts adjoining, and immediately proceeded to the further administration of brandy, to cover her with warm clothing, and to endeavour by some means to rouse the vital powers before applying the forceps, so as to have a greater chance of securing contraction of the uterus and the prevention of subsequent hæmorrhage. The catheter was also passed, but no urine escaped. Towards twelve o'clock, she was rather revived, and professed to feel better, although complaining at intervals of the sharp pain in the belly, and saying if it were not for that, she could go to sleep. A drachm of laudanum was then administered; she was gently moved to the edge of the bed, and the proper preliminaries having been arranged, and an attendant being stationed to apply pressure to the uterus, and follow it down during the gradual withdrawal of its contents, the forceps were then applied by Mr. Assaid, and the head slowly extracted. The whole delivery was performed slowly, partly with the hope of more surely ensuring contraction, by the gradual emptying of the uterus, and partly, to give as little fatigue as possible to the patient. The child was dead—it appeared as a large male, with a full-sized head; the uterus was felt contracting under the hand during the delivery, and it remained so afterwards. The placenta easily came away, by slight traction on the cord; delivery was completed at half-past twelve. The child had a livid hue, and the placenta contained venous-looking blood; very slight hæmorrhage followed the birth. A broad bandage with a firm and thick pad over the uterus was immediately applied round the abdomen, and half a drachm of aromatic spirits of ammonia, with twenty minims of tincture of opium, were administered, but the patient was evidently sinking. The abdomen now, as it did, though in a less marked degree, before delivery, gave evidence of its containing fluid of some sort; the pulse was no longer perceptible at the wrist. The patient complained of greater dimness of sight, of ringing in her ears, and that her breath was getting shorter, which indeed it was; her countenance wore a shrunken and anxious expression, her extremities were getting cold, she once or twice raised herself up on the bed, gave a vacant and rather wild stare around, and as suddenly dropped again. She refused everything offered her to swallow, but she replied coherently and intelligibly when spoken to, and offered some voluntary remarks. She once more complained of a racking pain in her stomach, and now being soon afterwards asked (as she had previously wished it) if she would like to see her little boy, she rather feebly and dreamily answered, that she should. When he was brought, in two or three minutes, to her, her eyes were feebly opened, but the film of death was on them; a slight expression of recognition played for an instant over her features, and as quickly passed, but she did not speak; and now, evidently, unconsciousness supervened, the intervals of respiration became longer and longer, and in five minutes life was extinct. She died at 1 P.M., half-an-hour after the completion of delivery.

Post-mortem examination, twenty-four hours after death. The whole surface of the body was very pale and wax-like; the mammæ were well developed and enlarged; the abdomen much distended (more so than immediately after death); the pelvis externally seemed of normal size. Over the front of the legs, a few dark purpurous spots were perceived, which could scarcely have been produced after death, as they

were uppermost as the body was laid. On incising the abdomen, a layer of fat, half an inch thick, was found beneath the integuments, but the muscular parietes were thin. On opening the peritoneum, we found the cavity almost filled with blood and clots, of which it must have contained half a gallon. The uterus appeared well contracted at its fundus; but lower down was discovered a *rent*, commencing towards the left side of the posterior wall of the vagina, immediately below the os uteri. It at first ran almost transversely across the vagina, separating it from the uterus, then obliquely upwards to the right side, through the muscular and serous parietes of the uterus for two or three inches, and continued on to the right broad ligament, through the serous coat only; the whole rent was nearly seven inches in extent. The right ovary contained a well-formed corpus luteum; the left was very small, and apparently atrophied. As regards the bones of the pelvis, the promontory of the sacrum was sharp and prominent, and the tuberosities of the ischia rather near together; but the pelvis was by no means too small for the safe expulsion of the child by natural efforts, had everything else been favourable. There was no appearance of inflammation having existed in the uterus. Different parts of its serous surface had, certainly, a bright rose-coloured tint, as had other parts of the peritoneal sac, but not more, it was supposed, than was explicable from post-mortem changes. The spleen was small, the bladder was empty and somewhat mottled. The kidneys were rather large; and on stripping off their investing tunic, a number of small white spots were perceived, which were imbedded in the secreting structure; this seemed like the lymphic deposits of inflammation at some former period. Owing to the presence of friends, the remaining viscera of the abdomen, and those of the chest, were not examined. T. M. R.

REMARKS. The previous history of this patient demands some notice. She had given birth to three children; her first labour was difficult, and the child still-born; her second child was born alive, and lived fourteen months; the third, a boy, is still living, and was expelled after a lingering labour. Multiparæ are more liable to suffer from laceration of the uterus and vagina, than are primiparæ, this accords with the experience of all writers on the subject; thus Dr. Churchill, at p. 857 of his work *On the Diseases of Pregnancy and Childbed*, gives the result of seventy-five cases quoted from different authorities, and, of this number, but nine occurred in the first pregnancy; of the nine cases recorded by Drs. Hardy and M'Clintoch, all were multiparæ. I have myself seen but two instances in which this serious lesion occurred in primiparæ; in one, there was intense agonizing and irregular uterine contraction, unrelieved by bleeding or opium; in the other, there was disease of the uterus itself. This woman's constitutional powers were also very feeble; the husband had but occasional employment; and, to increase their means of subsistence, she had recourse to the badly-paid occupation of a sempstress; but, notwithstanding she had fared so badly, the child was of full size—in fact large and well developed. It has been recommended by some of the older writers on midwifery, where there exists but a slight diminution of the natural size of the pelvis, to keep the mother on a small allowance of food during the last weeks or months of gestation,

in order that the child may not be so well nourished, and, therefore, unable to attain a size which might render the labour tedious or difficult. In several instances this has been experimentally tested; but, although the mother has suffered and become attenuated under the diminished diet, the development and nourishment of the child has not been interfered with. For two months prior to her labour, this patient had been complaining of dragging pain in the abdomen and back, but which could not have been very distressing, as although she might, with but little trouble, have had advice when recommended to do so, she refused. In my opinion, these pains were due to the dragging and weight of the gravid uterus, and altogether distinct from those pains which sometimes are found in pregnant women, and which depend upon a diseased state of the uterus itself, resulting in alteration of the tissues, and frequently terminating in ramollissement; or from those which usually attend the various forms of placentitis, and which are followed, more or less, by adhesion of the placenta to the walls of the womb. Labour appears to have been established at one o'clock, A.M., on the 16th; in one hour and a quarter, the membranes ruptured; and at a quarter to three, when Mr. Rooke saw her, he found the os uteri fully dilated, and the pains vigorous and bearing down; the head, which presented quickly, passed into the cavity, and the attendant was led to hope a speedy termination to the labour; but the pains assumed a new character, they became "agonising and torturing", and yet they served to advance the head, so that the scalpy tumour was not more than half an inch within the labia. From this period the head seemed to make no advance, neither advancing during pain, or receding during its remission. Matters continued much in the same state until 7 A.M., when the patient expressed herself as feeling a pain, which on previous similar occasions she had never experienced; she described it as "severe, scalding, burning", extending from the abdomen to the chest. This symptom deserves some notice, for I have rarely seen laceration of the uterus occur without a cramping or burning pain, with a degree of local tenderness in the abdomen, having preceded the lesion. Dr. Douglas is emphatic in his injunction for us to be on our guard for rupture, when such pain is suddenly complained of. From this time, the pains declined, not suddenly, as in many cases of rupture, but gradually; at first five or six minutes' interval took place between them instead of three. If the whole of the uterine tissues had been at first involved, if the rupture had implicated all the parts of the cervix or body, then, according to my experience, there is in the majority of cases a sudden cessation of uterine contraction; but this symptom does not hold good in all cases; for I have seen the child expelled by natural efforts, even when it was known by examination, and by other symptoms, that rupture had occurred. The alteration in the state of the pulse must also be noticed: at first, it was full and quick; when the lesion occurred, it became small, rapid, and thread-like; and just before dissolution, or rather soon after her delivery, it was imperceptible at the wrist. This alteration in the state of the pulse is usually found in cases of ruptured uterus and vagina, but it is also present where there exists laceration of any important internal organ. I have known it present, where a large ovarian abscess burst, and emptied its contents into the peri-

toneal cavity, during the progress of the expulsion of a premature child. When Mr. Rooke passed his finger to ascertain the progress of the labour, he found it stained with blood, but to not such an extent as to surprise him; and yet the quantity of blood poured out from the laceration, as gathered from the results of the post-mortem examination, was very great. Where lacerations of the vagina or uterus take place, one very frequent symptom is the discharge of fluid blood; but as in this case the head was fixed in the pelvic cavity, the blood found more ready ingress into the peritoneal cavity than egress through the vagina. That fluid was collecting within, was ascertained before delivery, and was rendered much more evident after the uterus was emptied; and this is not surprising, as the quantity of fluid and coagulated blood was estimated at half a gallon. Recession of the head, is generally another diagnostic symptom of rupture; here it was not, as the head was seated low down in the cavity of the pelvis. Vomiting is also a distressing but marked symptom; and here the fluid rejected was of a dark grumous character like coffee grounds. The vomiting of fluid of this character during the advanced stage of labour, is always to be reckoned as a grave symptom, especially if attended with symptoms of exhaustion. I have never seen a case of rupture of the vagina or uterus without it, but I have known it occur in labours which have terminated happily; but then it has not been accompanied by other symptoms, which usually attend this serious lesion.

Mr. Rooke, seriously impressed with the gravity of his case, requested the advice and assistance of his colleague, Mr. Assaid. This gentleman, taking into consideration that the patient had given birth to three full-grown children, and that the pelvis was not seriously abbreviated, was disposed to regard the case as one of uterine inertia, and was of opinion that, if by means of general and specific stimuli the system could be roused and the uterus excited to contract, the case might be terminated by natural efforts. To effect these purposes brandy was given, and the ethereal tincture of ergot was administered; the exhibition of the latter was followed hy the production of three or four sharp pains, but their continuance was brief; a second dose was administered—no pain resulted, but vomiting occurred Even at this time, the symptoms betokening exhaustion were not very great; yet the gentleman in attendance, doubting the issue of the case, sought the advice of the surgeon-accoucheur. Before the arrival of this gentleman, at the earnest entreaty of the patient, she was permitted to rise from her bed, and supported to walk up and down the room; this was quickly followed by aggravation of all the symptoms. It is at all times most difficult and painful to withstand the entreaties of the patient and her friends; the sense of constriction of the chest, the desire to breathe more freely, the feeling of oppression, the sensation of sinking, lead the patient to implore change of posture, to sit up, to stand, to walk; anxious relatives and watching friends join most energetically in the appeal; but such must not be conceded, for exhaustion will be developed more speedily, and death take place more quickly. It was so in this case; the alteration of position was speedily followed by dimness of sight and double vision; and when Mr. Pettigrew arrived, he readily suspected and diagnosed the character of the lesion. He wisely resolved to endeavour to rouse the vital powers

before attempting to deliver, by the administration of brandy, the application of warmth, and other similar means. About twelve o'clock, she had revived to a certain extent; opium was administered, the alteration to the proper position was slowly and cautiously accomplished. This is of great importance; we should, especially, be careful to keep the head of the patient lower down even than the shoulders. Due precaution was taken to secure the contraction of the uterus according to its diminishing contents, the forceps were carefully applied, traction was cautiously made, and the child slowly withdrawn. In rupture of the uterus, there are three modes in which delivery may be completed: firstly, by turning; secondly, by the employment of the forceps; and thirdly, by the use of the perforator. The first is only applicable to those cases where the head does not occupy the pelvis, or where it has receded; the forceps may be applied in cases where the head has not receded, and where there is no material abbreviation of the pelvic dimensions; yet, in the application of the blades of this instrument, great care must be had lest the child be forced to recede; thirdly and lastly, if the perforator be employed, the opening into the skull must be made gently, and not with so much force as in cases of locked or impacted head, lest it should also recede. In this case, the forceps were applied with tolerable facility; and the wisdom of the selection of this mode of delivery is shown by the sequel. But little difficulty was experienced in the extraction of the placenta; and in but one case that has fallen under my notice, have I had any trouble in the extraction of the secundines. In this solitary case, the placenta and its membranes escaped into the peritoneal cavity; and the difficulties in its delivery, with the feelings attendant thereupon, may be more easily imagined than described. There is one symptom which I have already alluded to, but which deserves a further remark, viz., the sensation of fluctuation in the abdomen, coming on and gradually increasing during labour. This could not have been ascitic fluid, for there was no evidence of its existence at the commencement of labour; if it were the contents of a cyst or abscess, its quantity after evacuation would not have been increased. Taking into consideration the time when it first evidenced itself, its gradually increasing quantity and its attendant constitutional symptoms, the gentlemen in attendance very rightly supposed it to be due to the effusion of blood. Large as the quantity was, it was not larger than might be expected from an examination of the parts after death. The symptoms following delivery were those to be expected; exhaustion became greater, dimness of sight and ringing in the ears supervened, her countenance became pallid and anxious, the extremities became cold, but coherence remained; she could answer questions as well as make voluntary remarks, and her last but momentary act of recognition, was bestowed on her only child. I have often observed that in the majority of these cases, where death takes place quickly after the lesion, consciousness persists to the last. It is unnecessary to recapitulate the necroscopic appearances, except as far as relate to the pelvis, vagina, and uterus. The promontory of the sacrum was sharp and prominent, the tuberosities were slightly approximated, but the pelvis was by no means too small for the safe expulsion of the child by natural efforts, although it must be remarked that the child was a male and its

head of full size. The laceration separated the posterior wall of the vagina from the uterus; then, running obliquely upwards to the right side, it divided the muscular and serous coat of the uterus for two or three inches, continuing to the right broad ligament, implicating only the serous coat; in its course it laid open several large sinuses, and hence the quantity of blood effused, which so speedily terminated this poor woman's life. On careful examination, there seemed to be no previously existing morbid lesion, produced by inflammation, or other cause, such as is found in the majority of cases of this fearful complication. I am inclined to suppose, that from the pressure of the tightly fitting head on the soft parts, the structures of which they are composed became infiltrated with serum prior to the laceration; that the lesion at first was small, but gradually increased until it assumed the fearful size that post-mortem investigation revealed.

Wellington Street, Southwark,
January 1850.