

was as large as a walnut when it seemed to cease growing. I did not examine the breast from Christmas of last year (when in addition to the growth just mentioned there were a number of nodules in and about the scar and a group below it in the subcutaneous fat) until April 18th last, when I was amazed to find that every trace of the growths was gone. I at once informed Mr. Page and he immediately went to see the patient and confirmed my observation.

It is always dangerous to draw conclusions from a single case but if thyroid extract had no effect upon the growths to what is their disappearance due? And if beneficial results from its use are, as Dr. Beatson maintains in his papers, dependent on a previous oöphorectomy why should it alone not succeed after the menopause has been passed? If it is really, and of itself, of utility in carcinoma of the breast then it ought also to be of service in carcinoma of other parts of the body, and I suggest its trial in inoperable cases when the growth is situated elsewhere than in the mamma. In this connexion also it would be interesting to know whether the subjects of thyroidectomy or those in whom that gland is functionally inactive are peculiarly liable to carcinomatous growths. I am not aware that such is the case. It would also be interesting to get information as to the condition of the thyroid gland in the subjects of this disease. How the thyroid extract acts it is very difficult to surmise. Whether it alone, or in conjunction with the menopause (either naturally or artificially produced), tends to promote a fatty degeneration of the carcinoma cells, or by stimulating the lymphatics to remove the carcinomatous material (to which theory there would seem to be obvious objections), or by increasing metabolism enables the phagocytes to cope with the disease, or acts in some other way, further data can alone supply facts for a decision.

Not the least puzzling feature of the above case is the development of a growth during the treatment. At the time, however, the patient was suffering great anxiety owing to the illness of her husband and was constantly up at night. The general health suffered much and it is possible that the thyroid tabloids were neglected. What we learn from this, and I think also from Dr. Beatson's cases, is that to do any good the administration of thyroid gland must be pushed to its full physiological effect and continued over a great length of time.

A CASE OF DECAPITATION.

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THE operation of decapitation is one which is so rarely required in midwifery practice that I think it desirable to report the following case. I have no means of ascertaining statistics as to the frequency of cases in which decapitation has been required, but I feel sure that it is an operation which it is very seldom the lot of a general practitioner to perform. A neglected shoulder presentation in which version is impossible is usually described as the condition which renders decapitation justifiable and necessary, but in the case I am about to describe the presentation was more rare and complex, being a true transverse presentation, the chest being the presenting part, with both arms prolapsed. The history of the case is as follows.

About 10 A.M. on March 21st, 1898 I received a message from Mr. G. Bosson of Alford, asking me to come to assist him in a difficult midwifery case in a village about three miles away. On arrival at the house I learned the following particulars. The patient was a married woman who had previously had two children born at full time, the labours having been natural and fairly easy. She had had good health during her pregnancy, was at her full time, and there were no special circumstances about the case. Labour had begun on the afternoon of March 19th; the pains had gradually become stronger during the night and the membranes ruptured about 10 A.M. on the 20th, when the nurse wished to send for Mr. Bosson, who had been engaged to attend the patient. The husband, however, declined to go for the medical man, urging that his wife was not "bad enough," and that she would get

over it all right without medical assistance as she had done before. The pains continued all day and all the next night, and at about 8 A.M. on the 21st, as the patient seemed to be making no progress and was becoming exhausted, the nurse insisted on the husband fetching the medical attendant. Mr. Bosson saw the case for the first time about 9 A.M. on that day and on examination found a transverse presentation as described below. He at once attempted to perform podalic version, but finding it impossible to reach a leg without an anæsthetic and recognising the difficult nature of the case he shortly afterwards sent for me to assist him. On my arrival I examined the patient and found the following condition of things. The right hand of the child was projecting outside the vulva, while the left hand could be felt immediately within the vagina, and on passing the finger up the sternum could be felt presenting, the chest being firmly pressed down by the contraction of the uterus. The head lay in the left iliac fossa, the neck being hyper-extended, and the chin could be reached by the finger with difficulty; the trunk and legs lay to the right, the only part which could be felt being the front of the abdomen, and it was quite impossible to touch a foot or a leg. The diameters of the pelvis appeared to be normal. The patient was somewhat exhausted, the pulse being 120, somewhat small, and regular, but on my proceeding to administer chloroform by a Junker's inhaler she took the anæsthetic well, expressing herself thankful to get some relief from the pain. When she was fully under chloroform Mr. Bosson attempted to reach a foot or a leg with the idea of performing podalic version, but after a considerable time he gave up the attempt and as an alternative tried to bring the head down by traction with the finger in the mouth, but the uterus was by this time so contracted down that he was unable to move the child in any way. He then requested me to try while he continued the administration of chloroform as, owing to a somewhat greater length of finger, I had a slightly longer reach. I found it quite impossible, however, even with the whole hand in the vagina to get high enough up to reach a leg, and the uterine contractions caused so painful a cramp of the fingers after a time that I was obliged to desist, and I found it equally impossible to bring down the head though I exerted very forcible traction by a finger in the mouth which could be reached with great difficulty. The patient meanwhile was becoming more exhausted, the pulse-rate rising to 140 and decapitation seemed to be the only possible way by which to bring about delivery. I therefore drove home to fetch a Ramsbotham's hook, which instrument I fortunately possessed, the patient being allowed to come round from the anæsthetic. On my return at about 2 P.M. I again administered chloroform, but the tonic contraction of the uterus was now so great that Mr. Bosson found it impossible to reach the neck of the child and requested me to try while he attended to the administration of the anæsthetic. After some time, passing the whole hand into the vagina, I managed with difficulty to pass my forefinger in front of the neck and hook it round, so drawing the neck down as much as possible. I then passed the decapitating hook up, point to the left, along the forefinger of my right hand, turning it backwards over the neck. Withdrawing the right hand I passed the left forefinger up to meet the point of the hook and, thus guarding against injury to the soft parts, by a sawing motion combined with traction I decapitated the child. By slightly pulling the arms, assisted by external pressure, the body of the child was now easily extracted and the head was delivered by means of the forceps. The patient, whose pulse-rate was 170, appeared to be very exhausted, but she gradually rallied as she recovered from the anæsthetic, the pulse-rate falling to 140. The placenta was expressed in about ten minutes; it came away without any trouble and there was very little hæmorrhage. The child was a healthy male, of rather large size but with no abnormality whatever, and apparently had lived up to the time of labour. I left the patient under the care of Mr. Bosson at about 3.30 P.M. in a fairly satisfactory condition considering the strain she had gone through and the length of time she was under chloroform, but unfortunately she never rallied from the shock. I did not see her again, but I learned from Mr. Bosson that she gradually sank and died on the morning of the 23rd, about thirty-six hours after delivery.

Apart from the operative interference required I think this case worth recording on account of the extreme rarity of the presentation. Dr. Galabin in his "Text-book of Midwifery" states that he has never yet met with a case in which the

foot or knee could not be reached, but it was absolutely impossible to touch either in this case even with the patient under chloroform pushed to the extreme surgical degree. Cephalic version was rendered impossible by the firm contraction of the uterus down upon the foetus and decapitation therefore became the only method of treatment. With regard to the operation itself, although I need hardly say that I have never performed it before or seen it performed I found very little difficulty in carrying it out when once the neck was encircled by the finger. The presence of both arms in the vagina and the impossibility of pushing them up out of the way interfered to some extent, however, by allowing very little room in which to work, and a good deal of care was required in passing the decapitating hook to prevent any injury to the maternal soft parts which, fortunately, I succeeded in doing.

Being in the country and therefore having no access to a good library I cannot lay claim to having studied the literature of the subject, but the text-books which I possess—Galabin, Playfair, Lusk, and also Ramsbotham—do not describe the peculiar form of presentation which was found in this case. In all the forms described in these text-books the presentation of the head or feet with the hands is mentioned and version in such cases is usually possible, but a true transverse presentation with marked opisthotonos and both arms prolapsed is not mentioned and is, therefore, I conclude, exceedingly rare. The usual causes of transverse presentations as generally given were here conspicuous by their absence. The child was a normal, healthy, living male at full term and not a dead, premature, or macerated foetus as one might expect to find. The mother was a well-built, healthy woman with no obvious pelvic contraction, as her two previous easy full-term labours show, and there was no other maternal abnormality to cause obstruction to labour. I greatly regret the unsuccessful termination of the case, but I feel convinced that the patient lost her life owing to the neglect of the husband to send for medical aid at the proper time. If the patient had been seen earlier version would probably have been possible under chloroform, but the long delay no doubt complicated the presentation, necessitating the operative procedure I have described with, unfortunately, a fatal result.

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A CASE OF TETANUS; EARLY AMPUTATION; RECOVERY.

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A MAN, aged twenty-nine years, was admitted to the Bootle Borough Hospital on May 25th, 1892, under the care of Mr. R. J. Sprakeling, suffering from a compound comminuted fracture of the bones on the outer side of the left foot (the cuboid and the fourth and fifth metatarsals), caused by the wheel of a cart going over it. Suppuration with separation of the dead bone followed, during which time the cavity of the wound was well sprayed with carbolic lotion and dusted with iodoform powder and the foot enveloped in a bran poultice which was frequently renewed. An "iron" mixture was prescribed. The patient continued in fair health and spirits up to June 5th—i.e., eleven days after admission—when he had slight trouble in swallowing a piece of orange pulp. On the 6th this difficulty was emphasised with regard to everything but fluids, the patient complaining that his tongue and the back of his mouth felt stiff. Other symptoms quickly made their appearance. His pupils were widely dilated and slight nystagmus was noticeable but sight, hearing, and taste were normal. He had some spasmodic contraction of the temporals and masseters, also of the left sterno-mastoid, preventing him from separating his teeth more than half an inch apart and keeping his head fixedly turned towards the left side. The reflexes were as follows:—Abdominal and epigastric: on right side when first tried +, but soon tired; on left side +. Cremasteric: right +; left very much -. Patellar: right +. Plantar: right +. Ankle

clonus was present. The organic reflexes were normal. Owing to all the symptoms pointing to the onset of tetanus the foot was removed immediately by amputation through the middle of the leg. The patient took the chloroform well. On the 7th the patient was about the same. On the 8th the spasms of the muscles of the jaw seemed worse although the patient had no trouble in swallowing liquids. The reflexes became easily tired and perspiration was profuse. The patient slept well. On the 9th slight opisthotonos was noticeable but the reflexes were not so excitable; speech was still impaired and it took the patient six seconds to say the alphabet. On the 15th owing to the appearance of a bromide rash, the administration of this drug, of which he had been taking 20 gr. three times a day since June 6th, was stopped, and 10 minims of tincture of hyoscyamus and 20 gr. of chloral hydrate were substituted. On the 17th he was able to move his head slightly from side to side and there was improvement in his speech, the alphabet being said in five seconds. On the 19th two hypodermic injections of extract of physostigmine ($\text{m x} = \text{gr. } \frac{1}{2}$) were administered. In the evening the patient was able to open his mouth more widely and to speak better and could sit up in bed. On the 20th three more injections were administered, but owing to the patient being very depressed, restless, and troubled with perspiration they were stopped. On the 21st stiffness of the muscles reappeared and as he had had no sleep for some days $\frac{1}{4}$ gr. of morphia was given with good result, the patient expressing himself as being "better than ever he had been." On the 23rd he was able to sit up to his meals which now consisted of tea, bread-and-butter and "slops." The reflexes were still exaggerated and ankle clonus was present; the stump when dressed twitched convulsively; towards evening the patient became very restless, especially during sleep. On July 5th solids were eaten without any trouble and the alphabet was repeated in five seconds. On the 13th the reflexes were almost normal; there was no ankle clonus and the muscles were soft. The alphabet was gone through in four seconds. When seen on Sept. 9th the patient was quite well.

The present theory of the disease—viz., that the bacillus is localised to the point of inoculation and that a ptomainic poison is generated at that spot, is absorbed into the blood, and gives rise to the muscular contractions characteristic of the disease owing to irritation of the central nervous system—is to a degree illustrated in the foregoing case. There can be no doubt that in this case the bacillus found entrance at the time of injury, seeing that after the patient's admission the wound was most assiduously plied with antiseptics and that all the wounds in the same ward were perfectly healthy, and I think it is a fair presumption that if this process had not been carried out the disease might have shown itself sooner and have been more virulent in type. The first symptoms detected were pharyngeal in character and were fortunately early recognised and the removal of the part inoculated was performed at once. In spite of this, however, *the symptoms for the first four days afterwards became intensified*, the jaw spasms becoming worse, and on the fourth day after operation there was opisthotonos. A further interesting fact in this case to be noted is that the skin reflexes were on excitation very markedly exaggerated but that after once or twice responding they became imperceptible.

The above facts are rather suggestive that the ptomainic poison either becomes (after its area of generation is removed) for a few days more virulent when in the blood, or so weakens in a progressive way the general physiological resistance of the system, or else that it has a progressively paralysing action upon the reflex inhibition centres in the brain and cord. It may further be, as has been suggested, that there are in the tetanic poison two or more substances of different constitution, one the true tetanic poison of what may be called a constant pathogenic index acting in a definite manner upon the motor cells, the others acting in a progressive way upon the general system and upon the reflex inhibition centres. The fact that the skin reflexes were first exaggerated and then so easily tired seems to suggest especially some disturbance of the sensory portion of the reflex arc. This seems probable from the fact that in tetanus the motor apparatus—i.e., the motor nerves and muscles—is shown to be capable of prolonged tetanic action—the muscles of the face by their contraction forming the risus and the masseters forming the lockjaw.

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