

ON ONE FORM OF PUERPERAL ECLAMPSIA.¹

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THE present paper is designed to illustrate the theory of the cause of a form of eclampsia puerperalis—viz., that due to sudden and forcible extension, and consequently stretching of the cervix uteri, thereby inducing convulsions, independently of the albuminous factor, which latter, with the majority of authors, is a *sine quâ non* of the disorder. I am wishful now to contribute a mite of assistance in forming a proper classification of such conditions of the system, and *a fortiori* the most applicable and proper treatment for each division.

The first impression given me of the close connexion between puerperal eclampsia in one form and violent stretching of the cervix uteri occurred in a pluripara, who had had more or less constant hæmorrhage for ten weeks previously to the termination of the full period. She was not my patient, but I was asked by her medical attendant if I would assist him in dilating the cervix, which was very rigid and unyielding, to an extent which would permit his performing version. After two hours' perseverance I succeeded, by careful manipulation with my two forefingers and thumb of the left hand formed into a cone, in opening the os to the size of a circle somewhat larger than a half-crown piece. My friend returned, and, having concluded that he could pass his hand through the aperture, commenced the operation; but as he forced his way through the cervix into the uterine cavity, the patient had one tonic convulsion and died there and then, without rallying in the slightest degree, although galvanism and every restorative at hand was used as promptly as possible.

The second case I had under my own care was that of a primipara about twenty-two years of age, florid complexion and fair, who was in labour many hours with violent uterine pains, but whose cervix was most resistant and cartilaginous. I watched my patient for a very long time, but the neck seemed as if it would not yield. I had not my forceps with me, but having determined to apply them—the propriety of which treatment I now doubt,—I ran to a friend who lived close by and borrowed his instruments. I was not absent more than ten minutes, and on my return I found the head pressing on the perineum and the patient in violent convulsions, which I learned came on a few minutes after I had left the house. Chloroform was given at once, and the delivery accomplished in a very short time instrumentally. She remained in a semi-apoplectic condition the whole night—viz., for about ten or twelve hours,—and when I visited her the following morning her senses were beginning to return. She did well. In this case I must say I certainly anticipated convulsions from the previous jactitation, delusions, and incoherent talking, and other premonitory symptoms which were present. Had I administered chloroform there and then instead of rushing for instrumental aid, I believe I should have saved my patient from the dreadful peril of eclampsia.

My third case is that of a pluripara, who aborted at the fourth month. The following is the history. Mrs. P—, aged thirty-four, a woman of florid complexion, dark hair and eyes, and excitable temper. Says she had three children born alive, the first by instrumental means, and the youngest came into the world naturally sixteen months since. Her periodic times returned seven months after delivery, and continued monthly up to January 10th, when the flow remained on her for three consecutive weeks. She dates her conception soon after the termination of the discharge. She said she was very sick for the first month or six weeks, but not so much as usual. After her primary confinement she menstruated every month during lactation; but it began at the seventh month with her second and third confinements. She now considers that she has been impregnated four months. After an outing in the country ten days since, and a great deal of walking and pleasure seeking, together with a hurried journey to catch the train, she found on arriving home that she had a show which continued daily, but no pains, with the exception of those

of menstruation, until last night at 10.30, when their character became more violent and severe, and were followed by a discharge of liquor amnii and some little hæmorrhage. Subsequently the ovum came away uncovered by membrane and placenta. Expulsive efforts caused much flooding, and she had fainted six times before I had visited her at 5.30. Next morning her condition was one of great bloodlessness, being extremely blanched and suffering from collapse and almost pulseless. On examination per vaginam I could feel the os to be occupied by a fleshy mass, which I endeavoured to remove by passing my forefinger round and dilating the rigid cervix, but without success, and with the effect, to my great surprise, of producing eclampsia, beginning with fainting, fixing of the eyeballs, and slight twitchings of the angles of the mouth, and followed by flushing of both cheeks. In fact, the common signs characterising *petit mal*. I discontinued my exertions at once, but on making another attempt in about a quarter of an hour there was a recurrence of the symptoms, and in my various trials to remove the placenta I found a recurrence of the eclampsia also again and again as often as I stretched the rigid cervix. I at last succeeded in detaching the whole substance of the mass and brought it away. Her own description of the attack was that it came on with a singing noise in the ears as of a kettle boiling, and she herself seemed to be some little time in it, although, as far as I was able to judge, it did not appear to last more than a minute. Seen on the following morning, May 21st, says she had a good night, but awoke with pain in the occiput. Has generally had headache the third or fourth day after delivery. Diet, milk taken by the stomach giving ease to the pain, which latter diminished as evening approached.—May 22nd: Bowels relieved; more restless. Movement of head causes a rushing sensation coincidently with cardiac palpitation, the rushing coming on at every throb of the heart, the two seeming to be cause and effect. Lochia very little in quantity. Tongue pale and flabby. Face anæmic. Diet: Chop, bitter beer (four ounces), port wine (three ounces).—23rd: Passed a very wakeful night, and has much headache, which, as usual, is worse in the morning after the night's rest, and disappears gradually as evening is nearing. Up to the present time she has been taking acetate of iron and chloric ether. I now stopped all stimulants and solids, and ordered simply milk and beef-tea to be given.—24th: No headache, and slept well. The five-grain compound rhubarb pill taken last night had produced an action of the bowels, causing great fainting and pain as motion passed through the rectum. From this period there was gradual convalescence under the ferruginous treatment, combined with the bromide and chloral, &c. I can recall to mind two or three other cases typical of this form of puerperal eclampsia, although I regret to say I have not preserved the notes.

Now two of the three cases I can vouch for not having an albuminous condition of the urine after labour, and if they had previously they certainly did not show any outward indications of the malady. In my first case, which proved fatal, there did not seem to be any of the usual uræmic appearance of Bright's disease, and looking at the state of my first and third cases as closely allied in their character and form, and differing only in degree of cause and effect, and stage of pregnancy, the two important factors in causing the fits were anæmia and stretching of the cervix. In Mrs. P—'s case I could produce eclampsia at will. The second case was one which had a vascular condition, the reverse of the others with the excito-motor system at a very high standard of tension and the violent uterine efforts driving the head through a rigid cervix forcibly and suddenly conveyed the shock to the higher nervous centres and caused the convulsions. As Dr. Barnes says in his lecture of April 12th, 1873, the healthy correlation of resisting power of irritation and nervous energy were not harmoniously preserved, allowing all to work on an orderly circle. Dr. Lever asserts that albuminuria always induced eclampsia puerperalis, and that the latter never existed without the former, dogmas which, I must say, experience teaches me to disbelieve. It is questioned by some as to whether the fit is consequent on the obstruction of the rigid cervix tending to divert the blood propelled from the heart to the head, or whether it is a deviation of nerve force due to the former hindrance. If we look into the history of Mrs. P—'s case we will note that, from the fact of the functional periodicity being in an

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active condition during lactation, that this points to the high nervous tension of the ganglionic systems which is an essential factor in the reflex resultant which I am endeavouring to prove. Again, the fact of movements of the head causing almost coincident palpitation of the cardiac region points conclusively to the sympathetic influence at work in the whole excito-motor system. I am therefore of opinion that the eclampsia in the cases I have related was due to shock and not to diversion of blood or of nerve force. Now I have arrived at the following conclusions: given a very rigid cervix and a high tension of nerve force we may have convulsions occurring during labour, and that when these two factors are present it is possible to anticipate from sudden stretching of the unyielding parts conveying through a nervous system in such a state as I have mentioned a reflex influence on the brain proper causing shock and resulting in eclampsia. *En passant*, to strengthen my argument, I am wishful to refer to an analogy which, although very limited in degree, I consider applicable to the intention of the paper, and I therefore introduce it. I allude to sickness. Dr. Barnes places ovario-uterine vomiting under the category of convulsions. We are all of us well aware of the old nurses' proverb of a sick labour being a safe one, and we also know as a fact that it is usually coincident with the passage of the globe-head through the cervix, and therefore a safe one, because the convulsion explodes in the gastric organ. I had almost forgotten to draw attention to the two other cases, and refer these to the same category as Mrs. P——'s as to cause and effect, and I have said that the resultant is due to the reflex shock conveyed to the brain from the stretching of a rigid cervix either at will or by the head of the foetus passing through it. And now I have arrived at a very important part of the subject—viz., the treatment of such cases as I have related. I shall consider it as an axiom that no practitioner should enter a lying-in room without chloroform. This is the sheet anchor in such emergencies as I have been discussing. And I go as far as to assert that its presence at hand is as essential, and probably more so, than ergot.

I have attempted to show that I have produced one form of eclampsia puerperalis by mechanical stretching of the cervix uteri without any poisoned state of blood. I shall consequently arrange my method of treatment under two heads: First, the preventive or forestalling; secondly, the immediate. I will commence with venesection, which I must discard as coming under either class, preventive or immediate. It may possibly be of service in relieving subsequently the comatose condition which in vascular temperaments arises from arrested circulation due to a relaxed reactionary condition of the vaso-motor system following the shock. But in two out of the three cases mentioned in this paper the system was anything but replete—in fact, the reverse—although the third case was not so hypernotic as to demand bleeding. Drawing your attention to my previous syllogism—viz., that given a rigid cervix and a certain explosive standard of the nervous system, I say there is every probability of eclampsia resulting, and on these grounds I think I may justify my belief in basing the *modus operandi* of treatment by using such means and administering remedies which are known to relax the tissues in question and reduce central nervous irritation. And amongst the preventive class I will take the following: belladonna, opium, bromide of potassium, chloral, and chloroform. Chloral has the combined effects of reducing the central nervous irritation as well as relaxing the tissues. Bromide of potassium acts more directly on the structure of the tissue of the cervix itself. When ordered as a preventive, I prefer giving the two drugs in combination. As to the immediate treatment when the paroxysm is going on, chloroform must be our sheet anchor. No recognised anaesthetic acts quicker, unless it be nitrite of amyl, the virtues of which I have no experience of. The former must be pushed to the surgical extent, and repeated as often as there is a recurrence of the eclampsia. After a time the patient remains in a more or less comatose condition, which may continue for some hours, or even days, without being fatal. The pulse and other general indications must be our guide as to whether we should use the lancet or not. We must use our discretion. I need not give any caution as to the necessity of avoiding all peripheral irritation, such as dashing cold water over the face, sinapisms, &c., which methods to check convulsions were rife in days gone by on account of their supposed restorative action, but which in

enlightened scientific periods have been proved by the highest of obstetric authorities to act quite in the reverse manner. One word as to the forceps, and I am well aware of the fact of my trespassing on dangerous ground when I say I should forbid the use of them unless the head is pressing on the perineum free of the cervix, and then will be the time and not before when we should seek instrumental aid.

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ABSTRACT OF PAPER ON PERICHONDRITIS OF THE LARYNX.

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AT the meeting of the British Medical Association in Leeds, after the reading of the above paper, the following points were submitted for discussion:—1. Is there such a disease as primary laryngeal perichondritis? 2. Are there any characteristics by which the laryngeal perichondritis of tuberculosis, of syphilis, and of cancer can be differentiated? 3. The occurrence of laryngeal perichondritis in enteric fever. 4. The causes of the dyspnoea. 5. The prognosis. 6. The treatment of laryngeal perichondritis.

Evidence in favour of the occurrence of primary laryngeal perichondritis was adduced, but the author laid stress on the difficulty of excluding the possibility of the perichondritis being of a secondary nature. In the diagnosis of the different forms of secondary perichondritis much difficulty was at times experienced. The presence of tubercle bacilli in the secretion from the larynx, pale and puffy swelling of the epiglottis and arytenoids, the occurrence of ulceration in the inter-arytenoid fold, and the existence of apical mischief in the lungs, spoke for the tubercular origin of the disease; the absence of pain, extension of ulceration from the pharynx, a history of past syphilitic manifestations, and the effect of full doses of potassium iodide were the chief points to be noted in syphilitic cases. In perichondritis of malignant origin, a thickened and infiltrated condition of the thyroid and cricoid cartilages and surrounding tissues, and the occurrence of hæmorrhage from the larynx, were the chief diagnostic points. Microscopic examination might be of use. The cause of the perichondritis of enteric fever was attributed to defective nutrition rather than to any specific inflammatory process. The absence of symptoms was stated to be a marked feature of typhoid perichondritis. (Edema of the larynx, immobility and median position of one or of both vocal cords, abscess, impaction of the necrosed cartilage in the glottis, collapse of the cartilaginous wall of the larynx, and, finally, in the more chronic cases, stenosis from cicatrization, were mentioned as the causes of the dyspnoea in laryngeal perichondritis. The prognosis in this disease was always a gloomy one; in the primary and limited variety, however, it was more hopeful. Of secondary perichondritis, the traumatic and syphilitic varieties were the most hopeful, though, in the latter, stenosis, as the result of cicatrization, usually occurred. In cancer the occurrence of perichondritis accelerated the end by exhaustion from the profuse suppuration. Typhoid perichondritis was a very grave complication.

Functional rest and the use of ice-bags, or Leiter's coil externally and ice internally, were enjoined for the treatment of the disease at the outset. (Edema should be treated by the application of cocaine and scarification, abscesses should be opened, and necrosed cartilage should be removed by the laryngeal forceps. Early tracheotomy was advocated, and subsequent dilatation by Schroetter's method practised. Allusion was made to the plan originally suggested by Dr. Duncan Gibb of splitting the thyroid and removing dead structures. This plan has been recently advocated by Dr. Sajous, and its employment in suitable cases was recommended.

OLD STUDENTS' DINNERS.—At the annual dinner to be held at St. Mary's Hospital Medical School, on Wednesday, Oct. 2nd, the chair will be taken by Dr. Broadbent, in place of Dr. Lees, who is unavoidably prevented from being present.—At St. Thomas's the annual old students' dinner will be held in the governors' hall of the hospital on Oct. 1st. Dr. Harley will preside.