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SUBACUTE CYSTITIS FOLLOWING PARTURITION.

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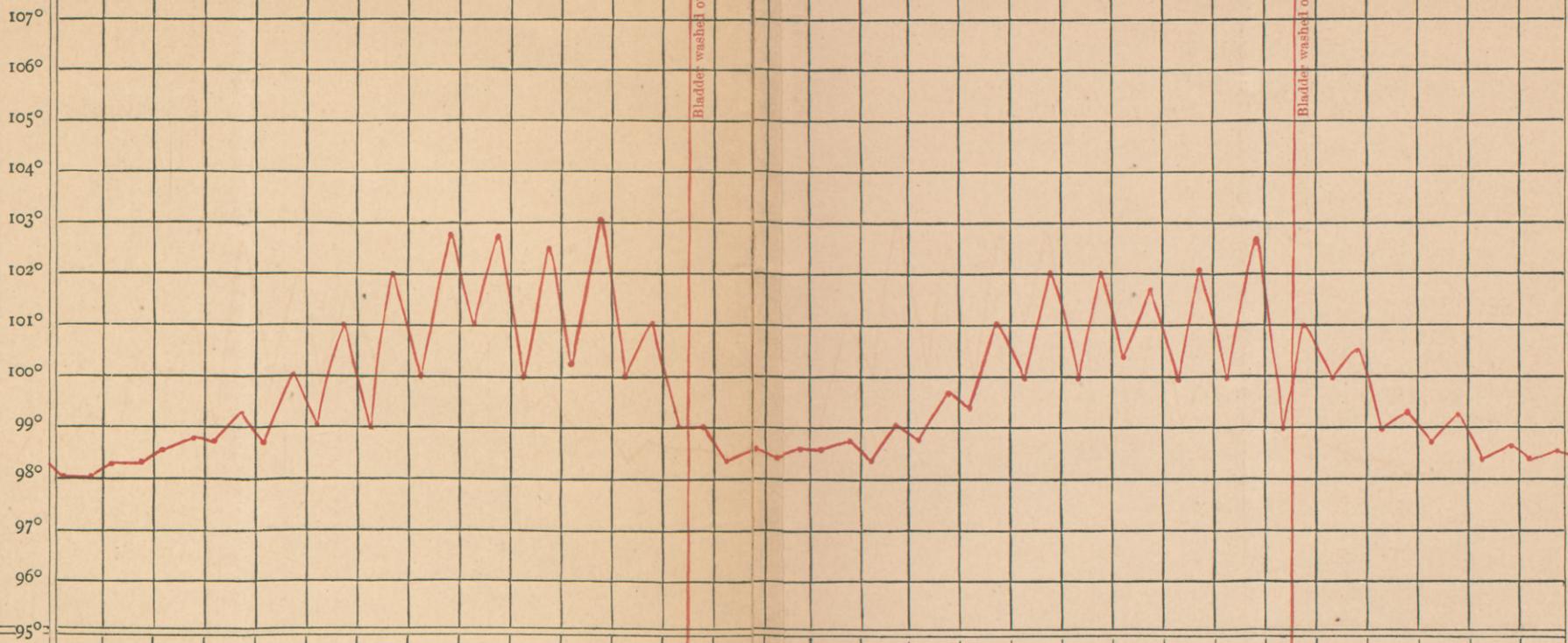
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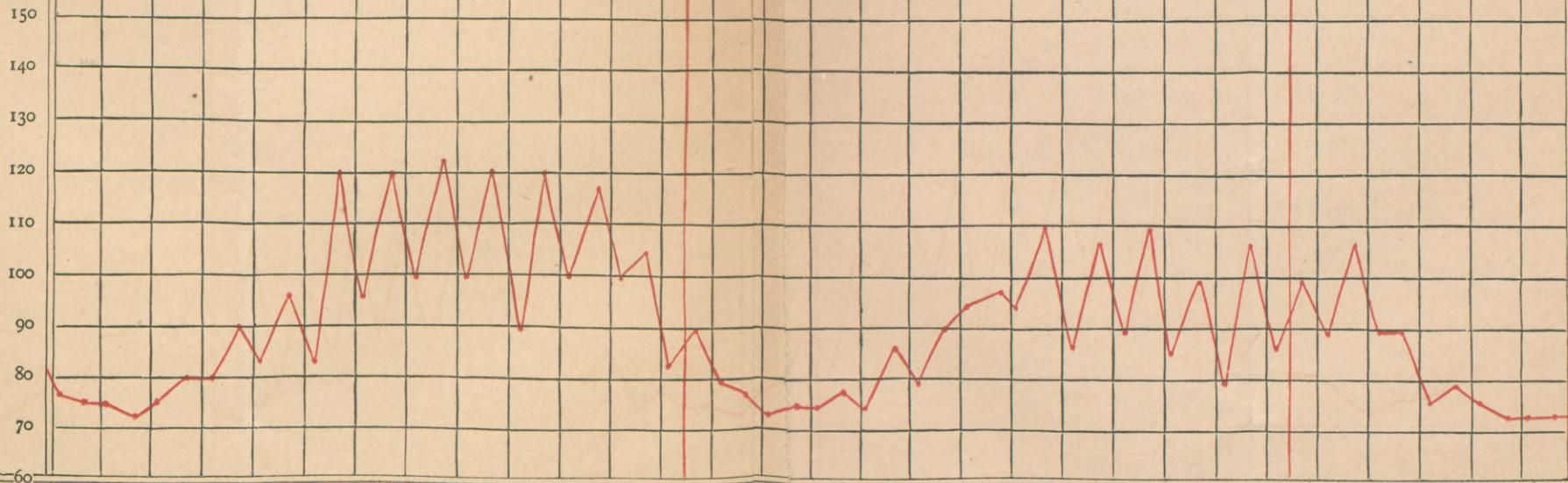


DAYS OF MONTH.	October													November																
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8
DAYS OF DISEASE.	5	6	7	8	9	10	11	12	13	14	15	16	17	18	9	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34

TEMPERATURE (FAHRENHEIT'S SCALE.)



PULSE-BEATS PER MINUTE.





## SUBACUTE CYSTITIS FOLLOWING PARTURITION.<sup>1</sup>

BY W. L. RICHARDSON, M. D.,

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No mention is made, in any of the works on obstetrics which I have been able to consult, of any inflammatory condition of the bladder following delivery. Holmes in his *System of Surgery* places among the causes of acute cystitis a protracted or difficult labor, but the disease as he describes it is a very severe affection, which runs a rapid and often fatal course, and which is always accompanied by a marked constitutional disturbance.

During the past three years I have met with four instances of a marked inflammatory condition of the bladder following delivery. It is possible that many of the cases of metritis or circumscribed peritonitis which have been reported by physicians may have been a similar temporary affection of the bladder, and it is with the view of calling the attention of the profession to this variety of cystitis that I venture to report the following cases.

CASE I. (with clinical chart). F. H., married, primipara, twenty-three years old, was taken in labor October 5, 1873, about six o'clock in the morning. The os slowly dilated, and the first stage was completed at 2.30 P. M. The pains, which had been regular and of considerable intensity during the day, now began to occur at longer intervals, and, as but little progress if any was made during the next three hours, forceps were applied, and the patient was delivered at 6.30 of a male child which weighed eight and a quarter pounds. During the first seven days which followed the delivery nothing abnormal was noticed; but in the evening of the eighth day the patient had a marked chill, followed during the next seven days by a very high evening temperature and pulse (the former being in the neighborhood of 102°, and the latter 120), while the morning examination showed a temperature and a pulse of only about 100. The morning after the chill, the patient complained of great pain and scalding on micturition, and there was very marked tenderness over the pubes. There was more or less nausea, and two attacks of vomiting occurred during the day. The history of the milk and lochia was normal throughout the progress of the case. The bowels were moved on the third day, by a dose of castor-oil, and subsequently the patient had, as a rule, one daily dejection. The dysuria was relieved temporarily by the occasional use of supposi-

<sup>1</sup> Read before the Obstetrical Society of Boston, December 11, 1875.

tories containing an eighth of a grain of the sulphate of morphia. Poultices of linseed meal and mustard were applied over the bladder. The tenderness over the pubic region still remaining, and the dysuria also being frequently complained of, an examination of the urine was made, and a considerable quantity of pus was found in it, together with a slight amount of blood. The bladder was accordingly washed out (October 20th) by means of a double silver catheter, with warm water, and afterwards with a weak solution of carbolic acid (six drops to the pint of water). The temperature and pulse at once fell, and the patient expressed herself as feeling decidedly better. The dysuria was greatly relieved. During the next five days the patient slowly improved, and the tenderness over the pubic region was very much less than before.

On the morning of October 27th, however, she had a second chill. The temperature and pulse began again to show a high evening and a low morning range. The dysuria returned, although it was not so severe as before. The tenderness over the bladder was again noticeable. The urine was found (November 3d) to be very offensive, and to contain a large amount of pus. The bladder was again washed out, and the immediate relief from all the symptoms just described was even more marked than on the first occasion. The temperature and pulse at once fell, the dysuria disappeared, and in three days no tenderness over the bladder could be detected. The patient made a rapid recovery, and went out to ride November 12th.

She was again confined May 3, 1875, but no deviation from a normal delivery or convalescence was noted.

CASE II. M. L., married, primipara, nineteen years old, entered the Boston Lying-In Hospital November 5, 1875, to await her confinement. Labor began early in the night of November 16th, although she had suffered considerably during the previous twenty-four hours from false pains. The os dilated rapidly, and the first stage of labor was completed about six o'clock. The pains now began to come on at longer intervals, and were less severe in character than before. The head, having reached the perinæum, made but little if any progress until eight o'clock in the morning, when, the os being fully dilated and the head low down in the perinæum, the membranes were ruptured. The pains at once became stronger in character, and a male child of seven and a half pounds was born at 9.45. In the evening, the patient being unable to pass her water, it was drawn by a catheter.

November 17th. The report was that the patient had slept well and was feeling nicely, although somewhat restless.

November 18th. The water was again drawn by the catheter, The milk and lochia were normal, and continued so during the subsequent history of the case. The pulse and temperature were somewhat elevated, as is usually observed during the accession of the milk. The temperature was about 101° and the pulse 120.

November 19th. At the morning visit the patient expressed herself as feeling very well. The temperature and pulse had both fallen to 98. In the afternoon, however, she complained of great distress in the abdomen, which was not relieved by the application of poultices. One eighth of a grain of the sulphate of morphia was ordered, and the patient was soon quiet. An enema was given at the evening visit, as no dejection had been had since the confinement; the effect of the injection was slight.

November 20th. The skin was hot and dry, the abdomen somewhat tender over the region of the bladder. Half an ounce of castor-oil was ordered, and a good operation was obtained from the bowels. The temperature was 100.6°, the pulse 120. Poultices of linseed meal and mustard were applied to the abdomen. In the evening the temperature had risen to 103.6°.

November 21st. The patient remained about the same, the temperature in the morning being 99°, and at night 104.2°.

November 22d. The tenderness of the abdomen had nearly disappeared. The patient reported herself as feeling well. The temperature in the morning was 101°, at night 103°.

During the next four days the patient's condition remained about the same. She did not complain of any abdominal pain or tenderness. The temperature in the morning averaged about 98°, and at night 102° or 103°, with a corresponding variation in the pulse. She reported herself as feeling well, and complained only of loss of appetite.

November 27th. She had a chill in the afternoon, and the next morning was unable to pass her water, which was therefore drawn by a catheter.

During the next three days no change was noticed, the temperature being, as before, normal in the morning, but quite high at night. Some tenderness on pressure over the bladder was present.

November 30th. The patient had a second chill.

December 1st. Two chills occurred. There were also two attacks of vomiting. The general condition of the patient was one of considerable nervousness, for which bromide of potassium was ordered. She now began to complain of great pain and scalding on urinating. Suppositories containing an eighth of a grain of the sulphate of morphia were ordered, *pro re natâ*.

December 2d. The patient had another attack of vomiting and complained of some abdominal pain. No tenderness, however, could be detected anywhere.

December 3d. There was decidedly less pain on micturition. The temperature, as before, still remained low in the morning and high in the evening. An examination of the urine, drawn by catheter, showed the presence of considerable pus.

December 4th. The bladder was washed out with a weak solution of carbolic acid (three drops to the pint), as in the previous case. The

next day, December 5th, the patient reported herself as feeling very much better. There was no dysuria. The evening temperature fell to 99.8°.

December 6th. An examination of the urine showed decided diminution in the amount of pus. The bladder was again washed out. From that time the temperature, morning and evening, remained nearly constant at a little over 98°.

December 10th. The patient sat up.

December 11th. She was about the ward, feeling as well as ever.

She was discharged from the hospital, well, December 16th:

CASE III. F. S., single, primipara, twenty-one years old, entered the Boston Lying-In Hospital April 16, 1874, to await her confinement. Labor began about eleven o'clock of the night of April 28th. The waters broke at five o'clock of the morning of the 29th, and the os was fully dilated at eleven o'clock. The pains having become very weak, and the labor making no further progress, forceps were applied, and the child (a female weighing six and a half pounds) was born about half past twelve. The first five days following the delivery, the urine was drawn by a catheter, the patient being unable to pass it herself.

At the evening visit of May 4th, the patient complained of some pain over the region of the bladder, and the next morning there was marked dysuria.

May 5th. The pain over the bladder had considerably increased, and the catheter had to be used. A poultice of linseed meal and mustard was applied over the pubic region.

R̄.	Potassæ bicarbonatis . . . . .	3 ij.
	Tincturæ hyoscyami . . . . .	ʒj.
	Mucilaginis acaciæ . . . . .	ʒv. M.

S. Half an ounce every three hours.

The scalding and pain on micturition gradually diminished, and the medicine was discontinued May 8th. The tenderness over the bladder was noticeable for a day or two longer.

May 11th. The patient sat up a short time, and the next day complained again of dysuria, and pain over the pubes. The recipe of the 5th was resumed, and a poultice reapplied.

May 14th. The pain and tenderness over the bladder had increased considerably, the former keeping the patient awake at night. There was some dysuria. The prescription of the 5th was omitted, and one eighth of a grain of the sulphate of morphia was ordered, *pro re natâ*.

May 15th. The patient reported herself as feeling much better. The abdominal pain and tenderness were decidedly less. The evening temperature and pulse were from the outset higher than the morning. The dysuria still continuing, the urine was examined May 21st, and found to contain a large amount of pus.

May 25th. The bladder was washed out with a weak solution of carbolic acid (six drops to the pint), and a drachm of the fluid extract of pareira brava was ordered three times a day.

May 27th. The tenderness over the bladder was decidedly less, although the patient still complained of great pain after passing water.

The dysuria gradually diminished, and June 6th the patient declared herself entirely free from it. An examination of the urine showed an entire absence of pus.

June 9th. The patient was discharged from the hospital, well.

The history of the lochia was normal throughout the course of the case. The variation between the record of the pulse and temperature, as taken in the evening, when compared with that observed in the morning, was not nearly so noticeable as in Cases I. and II.; but the variation was constant throughout the course of the case. No chill was observed, nor was the tenderness over the pubes so great as in the two previous cases. The dysuria however was, if anything, more marked, and less readily yielded to treatment. There was no loss of appetite, and but little if any constitutional disturbance.

CASE IV. M. O., married, primipara, thirty-seven years old, entered the Boston Lying-In Hospital October 4th, during the service of Dr. Tuck, who has kindly allowed me to report the case. Labor had begun, but the pains were very weak, and occurred at long intervals. The waters broke very early in the morning of October 6th, the os at that time scarcely admitting the tip of the finger. During the next three days the pains were very weak, and occurred, as before, at long intervals, the os being very firm and rigid. Dilatation was very gradual.

October 9th. Morphia was ordered, and the patient obtained some sleep. The water was frequently drawn by a catheter, the patient being unable to pass it herself. The urine on the 9th was reported as dark-colored and offensive. At seven o'clock in the evening the child (a female weighing seven and a quarter pounds), was born, dead. The placenta came away at once, and the uterus contracted well, but soon an alarming post-partum hæmorrhage took place, which was presently controlled by ice, ergot, brandy, and opium.

The next morning the patient was very comfortable. During the next three days the history of the case was that which usually follows natural labor.

October 17th. One week after her delivery, the patient complained of pain in micturition. The urine was very offensive and contained a large amount of pus.

October 18th. The bladder was washed out with a solution of carbolic acid (three drops to the pint), and the next day the patient reported decidedly less pain on passing water.

October 20th. The bladder was again washed out. No further dysuria.

October 22d. The patient sat up for an hour. Her subsequent history was one of rapid convalescence, and she was discharged from the hospital, October 31st, well.

Prior to the first washing out of the bladder the pulse had remained

over a hundred, but at once fell to about 80. The temperature, also, which had been high at night and low in the morning, although the variation was not so marked as in the other cases reported, fell to 98°, at which point it remained constant.

*Remarks.*—All these cases present certain points in common. In all, more or less protracted pressure was exerted, during the progress of the labor, by the child's head upon the bladder. In two of the cases forceps were used to hasten the delivery. In the two cases (I. and II.) in which the cystitis was best marked from the outset, the invasion of the disease was announced by a chill. In the first case, where there was a relapse of the disease, a second chill preceded the rise in the temperature and pulse. In all the cases there was great dysuria, which in most of them was the chief symptom complained of by the patient, apart from the general constitutional disturbance. In three of the cases (I., II., and III.) there was marked tenderness over the region of the bladder, and the patients complained of more or less pain referred to the same spot. In one case (III.), the pain was so great as to render the use of morphia necessary, in order that the patient might obtain any rest or sleep. In the severer cases (I. and II.) more or less nausea and vomiting were noticed during the progress of the disease. The clinical history of the lochia and milk was normal from first to last. In all the cases the urine contained a large amount of mucus and more or less pus. In only one case (I.) was blood found in the urine on a microscopical examination. In none of the cases was the constitutional disturbance as great as would naturally have been expected from the daily variation in the record of the temperature, pulse, and respiration. At the evening visits the patients complained of feeling feverish and sick, but in the mornings declared themselves almost well, except for the dysuria or the local pain and tenderness on pressure over the pubic region. The record of the pulse, temperature, and respiration was, in all these cases, very peculiar, being characterized by a low morning and a high evening range, and this peculiarity was especially marked in the first two cases. In the last two the same variation was noticed, but the differences recorded were not nearly so great as in the others. A clinical chart of the first case is published; it illustrates very well the character of the daily variations observed in all the cases.

The only treatment adopted was the application of poultices over the region of the bladder, until the pain and tenderness had in a great measure subsided; the administration of morphia, either in suppositories or by the mouth, for the relief of the pain or dysuria; and finally, after the more acute symptoms had subsided, the bladder was washed out with warm water, and later with a weak solution of carbolic acid and water. In all the cases the washing out of the bladder was followed by a general feeling of relief, and by a sudden disappearance of all the symptoms complained of, that was very striking.