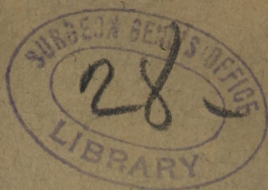


Channing (W.)

Cases of inflammation
of the veins + + +



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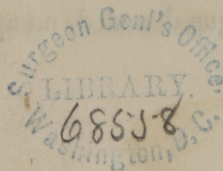
ON THE SUPPOSED IDENTITY

OF

Phlebitis and Phlegmasia Dolens.

BY WALTER CHANNING, M. D.

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CASES OF
INFLAMMATION OF THE VEINS.

WITH REMARKS ON THE SUPPOSED IDENTITY OF
PHLEBITIS AND PHLEGMASIA DOLENS.

BY WALTER CHANNING, M. D.

C. A., an unmarried woman, twentyone years of age, was first seen by me on the 17th of February, 1829. Her present illness began about a week since, but did not oblige her to give up work till the 14th. She complains of headache, cardialgia, and palpitation on exercise, or exertion of any kind. On the 13th says she had a fall, and thought she had caused some derangement in an old inguinal hernia on the right side, for which she habitually wears a truss. Nausea and vomiting followed the fall, and from that time the abdomen had been tender to the touch; but it was now neither tender nor tense. On the 16th, chill, followed by heat. Pulse now 80, vibrating, not strong nor full. Tongue denuded, no appetite; thirst rather

urgent; bowels costive; sallowness of face; lips colorless. She was reserved, rather than timid, so as to give the idea that she did not communicate her symptoms fully and exactly. Her symptoms did not lead to any satisfactory opinion respecting the seat of her complaint, and she was carefully watched on this account. On inquiry it was learned that she had been ill in the autumn, and, as she thought, with similar complaints, for several weeks, and that for several months the catamenia had been absent, but that they had recurred the last week in January.

She was purged freely on the 18th and 20th of February. On the 21st she was more ill; had more headache, anorexia, cardialgia, nausea and vomiting; pulse 84. Got two doses of ipecacuanha, and vomited four times; some bile; no dejection followed. From a suspicion that the disease might be in the head, she was put on a course of calomel. On the 23d she was disposed to doze; her pulse 90; tongue dry in the centre; feet cold much of the time. The afternoon previous she had a febrile paroxysm. She was slow in answering questions, and often groaned and sighed. In the night she had some delirium.

24th, catamenia, without relief; mind more dull; pulse 72; some delirium in the night. 25th, gums sore; reports better; pulse 72. The calomel was omitted. 26th, appeared more bright. 27th, less well. Has complained much of headache, and of pain in the right eye, especially when it is exposed to the

light. Says that this eye has at times a sensation in it as if exposed to lightning. Some strabismus was noticed this day. Pulse 108; mouth more sore; bowels have been kept open. She was purged, had four ounces of blood taken from the left temple by cupping, and was blistered on back of neck.

28th, she reported that she felt relief from the cupping, and still more since vesication, and that she could now see best with the left eye. Cup the right temple.

March 1st, more comfortable through the day and night preceding. Vision more perfect. Some pain in the ears. Asked for milk porridge, and some milk was directed to be added to her gruel.

2d. Complained of weakness, and of increased soreness of the mouth and throat, though she has not used any mercurial medicine since the 25th ult.; pulse 108. March 3d, less well in the night; complains of pain in the stomach; pulse 132.

5th. Mouth grows daily worse; tongue much swollen, so as to prevent speech; pulse 132; stupor quite gone; vision natural; pain in ear continues, perhaps from soreness of throat.

8th. Mouth the same; some slight pain lingers about the left eye and forehead. 10th, whole aspect better; got a little milk porridge. 11th, not quite so well as to head and vision. 13th, appeared nearly the same. It was thought then, and for several days before, that the affection of the head had subsided very nearly, if not entirely, under the severe saliva-

tion she had experienced, and which had not yet ceased.

At 5 P. M. this day, I was called to her, and found her in extreme agony. Her mind was clear; her face very pale and much shrunken; her skin cold, and her pulse extremely rapid and feeble. Her suffering was referred to the right groin, and the corresponding extremity. The whole thigh, leg and foot were greatly swollen, and very tender to the touch; but neither hot nor discolored, except from distension of the veins. Extra clothing was grateful to the limb. She had begun to complain at 1 o'clock P. M. and was soon in great distress; had great thirst, some nausea and vomiting, and frequent fainting. On inquiry it was now ascertained that she had suffered some uneasiness in this limb the day previous, and this morning, but had said nothing about it at the visits. The following course was decided on, under the belief that the principal difficulty was near the groin, and that it was very probably inflammation in the iliac and femoral veins, viz. Sixty leeches about the groin; a large blister on the upper and inner part of the thigh; and opium in full doses, till she should be relieved from her agony. Venesection was forbidden by her previous weakness, and the present state of the pulse.

14th. After the leeches and four or five grains of opium, she obtained some relief from her extreme agony. The thigh was now, 9 A. M. somewhat less tense, but the leg and foot remained the same.

She has hiccough, and her pulse are not better. The appearance of extreme prostration also continues. Apply forty leeches. Vesicate the thigh on the outside. Cathartic; fomentations. Opiate, if distress be great. Wine, or brandy, p. r. n.

5 P. M. Pain in both sides of thorax, since last report; frequent deep sighs and groans. Pulse scarcely perceptible. Vomited part of cathartic, infus. sennæ comp. but retained about four ounces; countenance exceedingly sunken; skin cold; jactitation.

Cerat. cantharid. seven by five, across lower part of chest. Foment leg, as before. Acet. opii, gtt xx. at bed time, if distress be urgent.

15th. Rather more comfortable; slept some without opiate. Pulse as yesterday at wrists; by carotids 156. One dejection after enema, with much flatus. Calf of leg now most painful. Hiccough continues. Swelling of tongue gone; tongue cleaner, moist; swelling at inner and upper part of the thigh subsided. Vesicate inside of leg; embrocation to whole limb; enema once in every four hours, until bowels be well opened.

4 P. M. One dejection, copious, since enema.

16th. Some amendment. Pulse 130, fuller. Leg less swollen, softer, œdematous, upper part of thigh very tender on pressure. Tenderness not above Poupert's ligament; has vomited twice. No dejection since report. Repeat enema.

17th. Lying on left side, breathing slowly; has

vomited five or six times; hiccough less; countenance and lips less pale; has had three enemata, none of them retained; no dejection; skin still cold; urine five or six times, involuntary; two hours sleep last night; upper part of thigh more tender; foot more swollen, pitting on pressure. No pain in abdomen.

18th. Short exacerbation of heat about 1 P. M.; afterwards some chill. Three enemata, one small dejection. Pulse 124, small, feeble; flush on left cheek; brown coat on tongue; mouth again more sore; leg rather more swollen. Has taken tincture of myrrh and aloes in small doses, and tinct. op. for pain. Limb more swollen, but œdematous. The whole limb tender, suffering from slightest touch. Urine sufficient, voluntary; no hiccough. Magnesia was directed, to be aided by enemata. Annoyed by blisters, which have suppurated.

19th. Seven dejections, without enema. Stomach altogether relieved. Slept better than any preceding night. Pulse 120. Countenance pale, but calm. Tongue as before; some slight disposition for food. Limb evidently diminished in size.

20th. Report of this morning still better than preceding. Asks for meat; is allowed to chew some. Bowels well.

21st. Reports favorable. Desired soft egg; had one, and was not at all incommoded by it. 22d. Rather more swelling about leg and foot.

23d. More pain in leg and foot since yesterday noon. No dejection.

R. magnesiæ drach. un. Repeat in six hours if need be. Ten leeches to leg.

24th. Limb not relieved. Countenance improved. After one dose of magnesia, three dejections. Pulse 120, fuller. Says worst pain is now between hamstrings under the knee, but that the leg also throbs, and feels as if pins were sticking in it. Leg found more swollen on examination; no pitting above the knee; blisters nearly healed.

Cerat. cantharid. 6-4. to lower part of leg. Keep blister on six hours, then remove it, and apply it again in the morning, if not relieved or vesicated.

25th, 9 A. M. Some relief from blister; limb slightly vesicated. Pulse 144, small, feeble; skin warm. One dejection. Vomited breakfast. Stomach now easy.

11 A. M. About fifteen minutes since, vomited two ounces of a grass green liquid, followed by sense of choking at top of trachea, and great distress. Face pale; brow contracted; respiration high and full; deep sighs; great jactitation; pulse fluttering; sense of suffocation seeming to pass down, according to patient, to epigastrium. She rose suddenly on end, and shrieking, fell back, and expired without any struggle.

EXAMINATION.—*Post Mortem.*

The body was examined fortyeight hours after death. In the *cranium* there was found some water

between the membranes, but the quantity was not large. The brain was firm, and very healthful in its general aspect. In the posterior lobe of the left hemisphere, was found a portion changed by disease. It might be called an abscess. Externally, a portion of the cortical part was changed in appearance, as if it had undergone a little decay ; or, as if a little pus were diffused through its substance. The outline of this portion was distinctly marked, the surrounding parts seeming quite natural. In length it was nearly an inch, and its average breadth was about half an inch. The change pervaded the cortical substance. The medullary substance, immediately under it, was diseased to a much greater extent. The change in the color of the cortical part did not extend through the medullary substance, for after cutting through a small thickness of this last, there was found a cavity. This cavity extended to the posterior part of the lateral ventricle, and apparently communicated with it ; but possibly the communication was formed in the handling and dissection of these tender parts. The cavity was obviously formed by disease, though its parieties were found lying upon each other without any distending fluid like pus or serum between them. Some such fluid, however, might have escaped during the dissection ; but it could not have been pus, as this would have declared itself by its color, and some of it would have been seen adhering to the internal parieties of the cavity. It might have been serum, of which some was found in the ventricles. The cavity

might have held one or two drachms of fluid. Its internal surface was white and soft, presenting an appearance of thick cream. This softened mass was perhaps a line or more in thickness. Regarding the medullary substance as fibrous in its texture, one might have supposed that the cavity was formed by a division of fibres at this part, and that the divided ends of the fibres had undergone softening. Around the borders of the cavity were several masses of a brownish red color, seeming to be portions of semi-coagulated blood, contained in circumscribed cavities.

In the *thorax* there was nothing remarkable. The heart contained rather less blood than usual. This blood had coagulated, and some of the coagulating lymph had separated from the red globules after the common manner.

In the *abdomen* the only thing remarkable was in the *right iliac vein*. This was found to be inflamed from the vena cava to the crural vein. The disease did not extend to the internal iliac, but from the common iliac it only passed to the external branch. The evidences of inflammation were, *First*, the hardness of the vein, and its distension in a greater or less degree. *Second*, on division, the coats were found thickened. *Third*, the internal coat was of a deep red color, approaching to livid. *Fourth*, the diseased part was almost entirely filled with coagulating lymph.

At the upper part, just below the vena cava, this lymph was cylindrical in form, and nearly pure, for the length of three fourths of an inch. This portion

was so shrunken as not to fill the vein, and its upper end looked as if a portion might have been broken off from it. The coats at this part were less diseased than elsewhere. Below this the vein was filled with coagulating lymph, which adhered closely with the vessel, being, as it were, glued to it, not organized. The lymph, there filling the vein, was not pure, but slightly reddish, from the mixture of red particles, and in one small part, midway from the vena cava to the crural arch, there was a little dark coagulated blood. The disease extended a very short distance below the arch; but the vein below that, and its principal branches, were found hard and large from the presence of coagulated blood. The coats in these parts were not thickened, though discolored, probably from the blood.

The circumstances mentioned explain the symptoms in the early period of the disease, and the swelling of the lower extremity, in a very satisfactory manner. But they do not explain the sudden death; nor the symptoms immediately preceding it. It was conjectured that this might have been occasioned by a portion of coagulum detached from the vein, and occasioning some obstruction in the heart or in the pulmonary vessels. But though this hypothesis was kept in view during the dissection, nothing was discovered to corroborate it. The windpipe was examined, as the sense of choking was one of the greatest complaints before death, but this part was found in a sound state, and empty as usual.

CASE II.

1829. Sept. 25th. This patient, Isaac Sole, aged twentyone, presented the following symptoms when I first saw him, this day. Great difficulty in breathing, accompanied with a grunting sound; acute pain passing from spine to lower part and right side of thorax; great tenderness of chest, preventing percussion; by stethoscope, respiration noisy, crepitous; uses left side of chest principally in respiration, and moves the trunk after a manner to favor the right side; pain in side came on last night, and is now more intense than since occurrence. Pulse 84, hard, strong; face deeply flushed. Says he was attacked with ordinary symptoms of fever a fortnight since, but was not obliged to confine himself to house till a week ago.

The treatment consisted in blood-letting, vesication, and powders of colchicum root, and calomel. Much relief followed, which continued till 3 A. M. of the 26th, when severe symptoms, like those just described, came on again. This was about twentyfour hours from the beginning of the treatment yesterday. The attack was sudden, and the pain in the right side was as intense as before. A full dose of tinct. op. was given immediately, which was soon followed by entire relief. Vesication near the spine of the affected side was ordered, and a continuance of the colchicum and calomel. I saw this patient at 9 P. M.; found

him easier, and that he had been freely purged by the powders; the dejections contained much blood. This last is not an uncommon effect of colchicum, but took place earlier during its use than is usual. The directions were to omit the powders if the bloody dejections continued, and to substitute pills containing calomel, opium, and tartarized antimony. If pain in chest recurred, to repeat the opiate, and to resort to venesection if indicated.

27th. The colchicum was omitted, and the pills given. Dejections still bloody, but less so; respiration perfectly easy; no tenderness, or uneasiness of any kind in the abdomen. Pulse 80, softer. Tongue dry, brown, rough. This has been its state more or less from the beginning. Skin warm, dry.

28th. 9 A. M.* Two dejections last night, one of them a little bloody. Slept but little. Pulse 84. Skin warm; face less flushed. Had chill this morning, and, following it, most acute pain in right leg. Upon examination, whole limb greatly swollen, tense, shining, not discolored; the least motion of the limb causes exquisite suffering. Pain most acute just below, or begins at Poupart's ligament, following the course of the femoral vein. Examined by pressure; great tenderness in groin, and acute pain, and enlargement of inguinal glands. Following the course of the vein with the finger, the pain becomes less about four inches below the ligament. Acute pain in calf

* The reports in this, the preceding, and succeeding case, are made between 8 and 9 A. M. and relate to the occurrences of the preceding day.

of leg, and on top of foot, scarcely bearing any pressure ; slight pitting on instep.

Sixty leeches to groin and course of vein ; afterwards vesicate upper part of thigh, and apply hot fomentations to the rest of the limb. Continue the pills.

6 P. M. same day. Two dejections, without blood. Day has been comfortable. A few minutes since was seized with most acute pain in right side as before ; says it followed immediately after swallowing a mouthful of cold water while taking a pill. This was just before my visit. He is bathed in sweat ; pulse 96, small, sharp. He got at once 60 drops tr. op. in warm tea, to be repeated in half an hour, unless relieved. Venesection if not relieved in an hour after second dose. Hot fomentations to seat of pain. He described the pain as beginning near lower edge of right scapula, extending forwards below pap, and ending at sternum. In this whole course surface exquisitely tender, not bearing the least pressure ; respiration high and rapid, ending with strong grunt. Since leeches, &c. to groin and leg, great relief of pain. Bears moderate pressure on groin, and along the portion of vein, which was so painful on pressure ; now no pain complained of there. Calf of leg very stiff ; no increase of swelling in the limb ; can bear it to be moved a little. No tenderness or pain in any part of abdomen.

29th. Pain in side and dyspnœa entirely relieved by opiate and fomentations. More tenderness in

groin and thigh. Sweats profusely. Tongue dry, but less brown.

Fifty leeches to seat of pain in groin and limb. Continue other treatment, and resume opiate, and vesicate side, if pain recur.

30th. Pain twice in side, but relieved as before. Pulse 84, softer. Leg reported much easier than at any former period, but not all diminished in size; can move the limb, and thinks he could bear his weight on it, or get out of bed without help. Some pitting over tibia. Bears pressure in course of vessels of thigh and over abdomen without complaint. The whole limb was very sensible to cold yesterday, and this continues today; can hardly bear the clothes to be raised during examination. Bowels regular; mouth not sore. To continue pills, &c. and apply leeches if pain recur.

October 1. Gums sore; five dejections, loose, painful. Tongue cleaner. Pulse 84, stronger and fuller. Thigh less tense, smaller; some pain in calf of leg on rising.

Forty leeches about thigh and groin. Diminish pills to three a day; if mouth gets more sore, omit them.

3d. Diarrhœa increased, and was diminished by Tr. op. This morning severe chill, with universal rigor, chattering of teeth; rapid respiration; pulse 120. For these got Tr. op. in warm tea, and was speedily relieved. Mouth quite sore; some ptyalism; omit pills. Thorax was examined by stethoscope and per-

cussion. Over seat of pain sound flat; respiration not heard; near this spot crepitous rattle. Vesicate this spot. Slight cough. Diseased limb decidedly smaller, and bears full pressure over seat of vein.

4th. Altogether more comfortable. Slight sound of respiration in spot in which it was not heard yesterday.

5th. Pulse 75, full. Tongue nearly clean. Mouth very sore. Two dejections. Rested well. Side free from pain. Diseased limb bent, and less swelled.

6th. Lying easily on left side; day and night very comfortable. Pulse 72. Tongue clean. Three dejections.

5 P. M. Pulse 84, hard, weak; increased pain in and about groin in course of vein.

Thirty leeches to seat of pain.

7th. Limb easier since leeches; still painful, and more tender on pressure. Delirious in night.

Twenty leeches to thigh in course of vein.

8th. Delirium through day and night. Some sleep, but not quiet. No cough; no expectoration. Complains only of back; this sore from lying. Pulse as before. Tongue dry; mostly denuded; slight crust near tip. On percussion right thorax flat below fifth rib; left resounds well. On right side murmur of respiration wanting below fifth rib; above this slight crepitating rattle. In groin less fulness, and less tenderness; some tenderness below groin in course of vein, but less than before.

Leeches, if pain about leg, and blister if elsewhere.

This patient gradually recovered from the disease of the leg, occasionally suffering from increased pain and swelling, but never so severe as to require more active treatment than fomentations. He got out of bed on the 14th without assistance, and was able to be dressed, and sitting up on the 22d. He was for some time annoyed by a cough, with bloody expectoration, and occasional attacks of pain in the right thorax. He walked about his room on the 22d. His appetite rapidly returned, and even when the thoracic symptoms made abstinence necessary, his hunger was great, and with much difficulty appeased. He had swelling of the ankle and foot of the affected limb for some time after the disappearance of active disease, for which bandaging was remedial. On the 25th October he began to complain of pain and swelling in the right arm, making motion very difficult. This subsided under the use of fomentations. A tumor of some size appeared on the 15th, in the right ham, which gave way to leeches and embrocations. On the 4th December, he was reported well. He had ceased to employ medicines for some weeks before, but as his disease had been a most severe one, it was thought safest for him to be watched, and a cautionary course pursued to prevent its return.

CASE III.

E. B. Cutter, aged twentysix. Jan. 17th, 1830. Says he has been unwell ten or twelve days, with pain in head, back, and shoulders, with bad taste in

mouth. Gave up work the 15th. Chills on that and succeeding day, yesterday. Complains now of headache, pain in back and shoulders as before, but not very severe. Tongue has thin white coat in centre; edges clean; bad taste; great thirst, not without appetite; and has sense of faintness at stomach. Pulse 108, hard. Sleeps tolerably well; face flushed; skin generally cool. These symptoms continued, with variations in degree, for some time. At times the pain in the head was very severe; the mind dull; memory uncertain. He had bloody dejections at one time; was much annoyed by dysuria; episaxis occasionally; cough; dyspnoea; expectoration at times bloody. His front upper teeth have much troubled him; they were frequently very painful, discharging from gums much pus and blood. They were injured by a fall from a stage coach late in November; and though the fall was severe, he does not recollect that his head was at all injured; at least pain was not felt in it till the time above stated.

He complained of soreness and stiffness in the limbs, Feb. 11th. The 12th, said these symptoms were confined to left thigh and leg, which upon examination were found swollen, last particularly below the knee, and exquisitely tender to the touch. Upon careful inquiry it was learned that slight uneasiness had been experienced in this limb for some days. His general state had been gradually improving. A blister was directed to the inner side of the thigh.

13th. Reports less pain and soreness in limb, and thinks they were less before vesication.

16th. Perhaps more soreness in and about groin; motion very painful.

17th. Fulness in groin increased; on pressure, many glands slightly enlarged; very painful on pressure, and in upper part of thigh in front; at this part limb swollen; below middle of thigh swelling and pain subsided.

Leeches to groin.

18th. No difference in pain about groin and thigh on pressure; tenderness in upper part of thigh and groin; the feeling there as if of cords.

Vesicate groin and thigh.

To 27th, reports gradual amendment. On this day more pain and swelling in limb, and feeling of cords extending from groin down a part of limb very distinct.

Leeches as before.

28th. Great relief since leeches.

March 4th. Sits up, and can support some of his weight on diseased limb. 7th, some increase of pain, which subsided after an active cathartic; and from this time he gradually recovered.

CASE IV.

April 29, 1829. Mrs —, aged thirtyseven, mother of six children. Has not been well last months of pregnancy, greatly annoyed by vomiting and pain in the uterus, especially at night. Occasional discharges of water from vagina. Heat at times great; is restless, thirsty. Was seized on 25th instant with

unusual affection of brain; top of head numb; could see only half of an object to which she directed her eyes, half of a letter for instance in reading, half of a person, &c.; was leeches freely in temples, with relief. Is plethoric; very fleshy; cannot be bled from arm; faints when arm is tied up, or before a vein can be opened. Diet has been carefully attended to; bowels kept regular by medicine; and nitre, Clutton's spirit, &c. have been taken with a view to diminish heat, &c.

Labor took place on the night of the 29th. I saw her at 3 A. M. Pains regular, but not urgent. Os uteri dilated, about size of a sixpence. Scarce any show. Membranes broke suddenly during a pain, and at a little past 6 A. M. the child, a full sized male infant, was born. Abdomen, examined immediately after the birth, is large, firm, as if delivery had not taken place; examined, the arm of another foetus was felt presenting, and was at once protruded through the external organs by a very severe pain. When the pain subsided, I passed my right hand with much ease into the uterus, gained the feet, and turned and delivered the child, a full sized male infant, without difficulty, and with little more suffering to the patient than in ordinary labor.

This patient continued very well, the lochia natural, and milk in the breast, till the morning of the 2d of May. I was called to her between 6 and 7 A. M. and found her suffering a very severe rigor, attempting in vain to control the shivering with her will;

voice tremulous ; face anxious, pale ; lips livid ; skin is warm, and in some parts hot. Reports her night to have been unusually good ; slept soundly till an hour and a half since ; then awoke with severe pain in the lowest part of the abdomen, and was soon seized with chill. Pulse 120, strong, hard. Fomentations have been applied to the abdomen, and bottles of hot water to feet and legs. Upon examination, the pain is found deep seated in the pelvis, beginning within the right ilium, and shooting in various directions through the pelvis ; it is also felt in the left hypogastrium, extending to the groin, and down the thigh. She has pain in the forehead, but not very severe.

In treating this case, an attempt was made to bring about immediate resolution. The symptoms were very severe, but they had very recently manifested themselves. She was bled ; a vein filled unusually well, and the mind was so occupied by suffering, and apprehended danger, that there was no disposition to faintness at the beginning of the operation. About twenty ounces of blood were drawn from a large orifice and good stream, when faintness came on, and the blood ceased to flow. Much relief was experienced. The local symptoms were diminished, and the force of the pulse lessened. Its frequency was not much altered. The following was next directed.

℞. Antimon. Tart. gr viij aq. bullient. unc. un. cap. statim drach. un. et rep. quaq. hora donec. vom.

12th, noon. One drachm of the solution produced much nausea and vomiting. Pulse still as frequent ;

pain increased, but less than before blood-letting ; it is most severe about and within left ilium, and about groin and thigh ; cannot extend right limb.* Examined abdomen again, and found the uterine tumor large, hard, and exquisitely tender. This was not felt at the morning visit, though carefully felt for.

Twenty French leeches about ilium, and apply a chamomile fomentation over whole abdomen. Frequent loose dejections ; nothing is given to check them, as relief follows each discharge, and there is no present exhaustion.

7 P. M. More comfortable ; has slept since visit. Pain diminished, but still felt low in the abdomen. Twenty leeches to seat of pain ; vesicate ; and afterwards one of the following, and repeat every four hours.

℞. Hyd. Sub mur. gr. xij Antimon. Tart. gr. i. pulv. opii. gr. i. M. divid. in Pil. no. iv.

11 P. M. Much griping ; bearing down ; heat and general uneasiness. Frequent, small, watery dejections. Says blistering always annoys her ; feels fatigued from application of leeches ; urine free, though complains of dysuria. Begs not to be touched. Pulse 100. Gave laudanum with Clutton's spirit, and applied fomentations to blistered surface.

May 3d, 1 A. M. Was called to see patient ; found her very uncomfortable. Complains of great distress, not acute pain, at lower part of abdomen. Pulse 96,

* I saw this lady today, July 22d, 1830. She is in the fifth month of pregnancy. I asked her if she had experienced any pain in the right limb since her recovery. She said that up to this time she occasionally feels pain in the part, and is reminded by it of her former suffering.

softer than before. Repeated laudanum, &c. Gave another pill of the submuriate. Patient was soon much relieved; profuse sweat, warm, general. Asked for friction over sacrum and thighs; much relieved by it.

7 A. M. Asleep; has been asleep two hours. When awake, expressed herself much refreshed; no griping; abdomen easier than at any former time of the disease; very little pain, and that scarcely augmented by pressure; uterine tumor not to be felt; abdomen every where soft, and not at all tumid. Pulse 84, soft; reports better than at any other visit; can extend right limb, and lies in this position easily; whole aspect much improved.

The remainder of the week is filled with daily amendment. 13th, walked a step or two. Some milk in the breasts. June 1st, health established, but the milk has entirely disappeared.

The foregoing are communicated as cases of Inflammation of Veins, a disease which has, within a few years, excited much interest in the profession. About the first no question can arise. Its nature was fully declared by the symptoms during life, and the opinion then formed was abundantly confirmed by the appearances after death. I regret that there has not been time sufficient since I determined to communicate this paper, to make an engraving of the diseased veins which are in my possession. This patient suffered two grave diseases at the same time. A disease of the brain preceded that of the veins some time,

even months, if the statement of the patient is admitted in evidence. The question may occur, whether the appearances observed in the brain after death were occasioned by the disease in the head, for which this patient first came under treatment? or were they Secondary Effects of Inflammation in the Veins? The latter question contains the title of a very able article, by Mr Arnott, in the fifteenth volume of the London Medico-Chirurgical Transactions. I am inclined to ascribe the appearances in the brain to the disease which manifested itself there some time before the limb became diseased. Mr Arnott has furnished abundant evidence that such disease might have accompanied, or been produced by the phlebitis; but the order of time, in the above case, does not seem to me to allow us for a moment to suppose that the softening and other disease of the brain was an effect of the inflammation of the veins.

Death took place suddenly in this case, and after changes had occurred, which promised a different issue. The disease, in like manner, was sudden in its invasion. In the latter of these circumstances, this case resembles many others of phlebitis on record. In the suddenness of the fatal symptoms, it resembles one in Dr Davis's paper, in the twelfth volume of the Medico-Chirurgical Transactions. In Dr D.'s case, symptoms of puerperal fever preceded those of phlebitis, or, as Dr D. terms it, phlegmasia dolens. The treatment was successful. In about a week after it was begun, "she convalesced rapidly

and satisfactorily." "Her death took place *instantaneously*, whilst in the act of changing the recumbent for a sitting position, in the expression of a little merriment at the expense of something ludicrous which her waiting woman had said to her, and in about an hour after the enjoyment of an unusually full dinner." Examination after death discovered that every part examined was in a natural condition, except "a part of the left external iliac vein, including about half an inch of the upper portion of its corresponding femoral vein. That vessel was found strongly attached by adhesions of its cellular coat to the parts forming its natural bed. Its parietes still retained a morbid thickness, and its internal tunic was studded in several places with deposits of adherent lymph. The portion most remarkable for this incrustation, and otherwise most diseased, was the part of the vein immediately under Poupart's ligament. The appearance of that part is yet well preserved in the preparation, and forms the rough scabrous portion of it. The tube of the vessel was still manifestly pervious, though it had suffered a diminution of capacity, amounting to, perhaps, one half of its natural diameter. The inguinal glands were not diseased. The right iliac vein was in a perfectly healthy state." *op. cit.* p. 435.

The second case above reported was alike sudden in its invasion and violent in its character with the first. It occurred amidst other very severe general disease, and had complicated with it in its course very formidable disease within the thorax. If a doubt

can arise as to this being a case of phlebitis, I know of nothing to sustain it but the fact of recovery, a rare thing in this disease in any of its forms, and surely hardly to have been looked for in one so severe as this. For relief of the attacks in the chest the principal means employed was opium. It was given with a view to the relief of the present exquisite suffering of the patient; and from recollecting how copiously blood-letting and other means had been tried not long before, I felt persuaded there was no hazard in trusting to it. I am disposed to think that the longer we practise physic, the more we see of disease, and of the effects of remedies, the freer and earlier in cases is the use we make of opium. I have very recently been struck with its good effects in cases of extreme pain, which wanted the characters which govern us in the use of this article in other diseases. One of these was a vigorous young man, who came under my care for fever. When I saw him, along with febrile symptoms, he had acute pain in the abdomen, about midway between the false ribs of the left side and crest of the ilium, about two hands breadth from the *linea alba*. Breathing aggravated the suffering, and the least motion of the trunk produced an outcry of agony. Full blood-letting, to thirtyfour ounces before syncope, fomentations, vesication and colchicum were tried, with directions to resort to full doses of Tr. opii. if pain was not relieved. It was not till the last was tried, and its use was deferred for some hours to give the other means a

fair trial, that this man got relief. A similar affection soon after seized the left thorax, and top of the left shoulder. The suffering was equally severe. Very little relief was obtained until opium was again freely used. Recurrences of pain have been frequent since, with similar benefit from the remedy. Of late his whole treatment has consisted in pills containing three grains of solid opium, and he is entirely convalescent.

Another case was of a lady after confinement.* She appeared to be most perfectly healthful at the time of labor, but betrayed after delivery, as I learned, great irritability. I was called to see her five days after confinement, and found she had been almost continually watchful since that event. She had been seized with chills on the morning I was called, and I found her with a pulse of 152 in the minute, small; abdomen full, as if she had not been confined; tender on pressure, especially over the uterus, which remained very large, and hard. Her greatest suffering was in the right thorax, almost preventing respiration; the *slightest motion* occasioned her to cry out with the agony it produced. The skin was warm and bathed in sweat; the tongue was clean and moist; the expression of the face was peculiarly brilliant, when absence from suffering occurred—that expression which belongs to a highly, but pleurably excited mind, and, from its resemblance to some varieties of

* The labor was preternatural, but was completed in less than twelve hours, and with no more suffering than a previous confinement. I saw this patient, out of town, in consultation, and did not see her again till called the fifth day from her delivery.

the maniacal countenance, I could not but ask the nurse, if there had not been delirium the night before. It belonged to the state of watchfulness probably, which had existed so long, and which had not yet produced exhaustion.

The treatment of this case consisted in full opiates at first, combined with Clutton's spirit; and fomentations to the whole abdomen of chamomile flowers, in bags of flannel wrung out of hot water. To these were to be added, as soon as relief occurred, pills of calomel, opium and tartarized antimony, in combination. Leeches to the seat of pain, and vesication, if the above did not produce relief. At bed time a full opiate was directed, unless sleep.

The next day I found this patient greatly, I had almost said entirely, relieved. Her sleep had been very sound, and when she was roused to take a little nourishment, she hardly recovered consciousness enough to swallow it. The pulse was 96, soft. The bowels were free; abdomen less full; still a little tender over womb. The lochia are natural; and the breasts are full of milk, as they have been since confinement. This patient suffered similar paroxysms, the seat of suffering being different in them all. The last was in the left thorax and top of left shoulder. They yielded to the fomentations, and laudanum, except the last, which not yielding as soon as the others, a large blister was applied, with relief, over the greater part of the thorax. In the first attack, the right hip and upper part of thigh were very painful, especially on

motion. No swelling, or tenderness on pressure could be discovered, and the symptoms soon disappeared. On the nineteenth day from labor, and the fourteenth from the attack of severe disease, this patient was fully convalescent. She had been very comfortable for many preceding days.—This resembles some cases lately published in London by Dr Robert Lee, which will be more particularly referred to hereafter.

The third case was very mild. It hardly seemed that so severe an affection as phlebitis could exist in a degree so slight as not to produce more notable effects. The symptoms however are considered sufficiently characteristic to warrant the short record which is given of the case. Similar mild cases may be met with in writers who have treated of the disease.

I have added the fourth case, from its resemblance to a disease described by Dr Robert Lee, in his truly valuable paper in the second part of the fifteenth volume of the *Medico-Chirurgical Transactions*.^{*} This disease is inflammation of the uterine veins. On this subject Dr Lee observes, “Recent experience has induced me to believe, that uterine phlebitis is of far more frequent occurrence than has yet been suspected, and that to it must be referred many of the fatal disorders of puerperal women, which have usually been comprehended under the vague designation of

^{*} *Pathological Researches on Inflammation of the Veins of the Uterus, with Additional Observations on Phlegmasia Dolens*, by Robert Lee, M. D. Op. Cit. p. 369.

puerperal fever or peritonitis." p. 405. I shall have occasion to recur to Dr Lee's communication by and by.

The disease which forms the subject of this paper has an interest to the physician, aside from what belongs strictly to itself. It has within a few years been identified with another disease, with which it has certain symptoms in common; this disease is *phlegmasia dolens*. The identity of these diseases was first promulgated by Dr Davis, in his communication already referred to. It would seem that till the time he wrote, with the exception of the celebrated case of Zinn,* no dissections had been made in cases of *phlegmasia dolens*,—(Hull, a very learned and well known writer on this disease, spells it *phlegmatia*.) It is not however solely for the sake of proving the identity of these diseases that these post mortem examinations are brought forward by Dr Davis, but for the more important end to show that the true pathology of *phlegmasia dolens* has hitherto been unknown; to prove, in fine, that this disease is not produced by a metastasis of the lochia, the doctrine of Muriceau; of the milk; that of Puzos, by inflammation of the lymphatic organs or system; or White's doctrine; of all the textures of the limb, excepting perhaps the blood vessels, that of Hull; but to prove, or at least to attempt to prove, "that the proximate cause of the disease called *phlegmasia dolens*, is a violent inflammation of one or more of the principal veins, within

* Comment. Soc. Reg. Sc. Götting. tom. 2.

and in the immediate neighborhood of the pelvis, producing an increased thickness of their coats, the formation of false membranes on their internal surface, a gradual coagulation of their contents, and occasionally a destructive suppuration of their whole texture, in consequence of which, the diameters of the cavities of these important vessels become so greatly diminished, sometimes so totally obstructed, as to be rendered mechanically incompetent to carry forward into their corresponding trunks, the venous blood brought to them by their inferior contributing branches.”*

Dr Lee, who has already been referred to, has written in support of the doctrine of Dr Davis. His first paper, entitled *A Contribution to the Pathology of Phlegmasia Dolens*, is in the first part of the fifteenth volume of the *Med. Chir. Trans.* Dr Lee reports five cases, all of which recovered. The first died from uterine hemorrhage twentyone months subsequent to the attack of phlegmasia dolens. Obliteration, and other marks of disease, were discovered in the common iliac, its subdivisions, and upper part of the femoral veins, of the side and limb which had been the seats of the previous disease. In the second case, unequivocal marks of phlebitis, according to the author, were present; in the remaining three, though Dr Lee had no doubt that an inflammatory affection of the veins existed, yet, he remarks, “that degree and kind of swelling of the inferior extremity did not take place, which is considered to be characteristic of

* *Med. Chir. Trans.* Vol. XII. p. 426.

phlegmasia dolens.”* It is not perfectly easy to decide to which of the diseases these cases, except the first, strictly appertain. The first was a case of phlebitis, as the symptoms indicated, and the examination after death proved. Three of the others at least are somewhat obscure. They wanted the characteristics of phlegmasia dolens; which fact, if this be identical with phlebitis, might, it would seem, separate them from the latter disease.

In the second part of the same volume, Dr Lee has a paper on inflammation of the veins of the uterus, from which an extract has already been made. In this paper, Dr L.'s views respecting phlegmasia dolens are further developed. The following quotations will give some notion of his latest published opinions. Speaking of the cases reported in his paper, fifteen in number, twelve of which were fatal, Dr Lee remarks, “Although these are the only cases of phlegmasia dolens, wherein the affection of the iliac and femoral veins has been distinctly traced to the venous system of the uterus, yet they would perhaps of themselves warrant me in drawing the inference, that the disease generally commences in the uterine veins, and that it is not a mere local affection of the limb. This general conclusion will, however, derive strong additional support from the following facts, which I adduce from the works of different authors.”†

After giving these facts, Dr Lee goes on to say,

* Op. Cit. p. 145.

† Op. Cit. pp. 391, 392.

“As none of the symptoms of phlegmasia dolens were present in either of these cases, and as neither pain nor swelling occurred in the left inferior extremity of the patient whose case I first detailed, though the common and internal iliac veins were both completely impervious, it would seem to follow, that it is essentially requisite to the production of the disease that the inflammation should extend from the iliac into the principal veins of the extremity. In all the examples of phlegmasia dolens which have come under my observation, this extension of the inflammation has been distinctly marked by increased sensibility, and by a hard and distended state of the femoral vein, from Poupart’s ligament to some distance along the inner portion of the thigh.”* Again, at page 399, “The mode of development and extension of the inflammation from the uterine to the iliac and femoral veins of the affected extremity, will be best understood by a concise statement of the principal facts relating to uterine phlebitis, *of which phlegmasia dolens must now be considered as merely one of the remote consequences.*”

The following is the conclusion, which Dr Lee draws from all the facts which he relates. “Such is a faithful relation of the facts, which have led me to conclude that inflammation of the uterine veins is a disease of frequent occurrence, not only subsequent to parturition, but in the malignant organic affections of the uterus, and that the extension of this inflam-

* Op. Cit. pp. 393, 394.

mation along the hypogastrium to the iliac and femoral veins, is the cause of all the phenomena observed in phlegmasia dolens.”*

It is quite curious to observe the course which medical opinion has taken in regard to this doctrine of Dr Davis, and which is so fully advocated by Dr Lee. In Europe, both on the continent, and in Great Britain, it has been very generally, if not universally, received. In this country, on the contrary, I find no writer who has adopted it, and in conversations with many physicians, I have not found an individual who receives it.

Dr Hosack, in 1824, just a year after Dr Davis's paper appeared, published a valuable essay, entitled “Additional Observations,” to an Essay on Phlegmasia Dolens, which was printed two years before.† These “Observations” are a critical examination of Dr Davis's theory, with a view mainly to its refutation. In 1829, Dr Dewees published an essay on phlegmasia dolens.‡ This is truly a very excellent and practical essay. Dr Dewees examines the various preceding opinions and doctrines with much fairness, and with a very just apprehension of their various merits. He rather favors the opinion of Hull, and his own theoretical views are summed up in the two following suggestions, after acknowledging that the

* Op. Cit. p. 432.

† Essays on various subjects of Medical Science. By David Hosack, M. D. F. R. S. L. and E. &c. 2d Vol. p. 233. New-York, 1826.

‡ American Journal of Medical Sciences, No. IX. Nov. 1829. Philadelphia, 1829.

pathology of the disease remains unsettled—"1st. Be the affection seated in whatever tissue it may, its character is highly inflammatory. 2d. That in our opinion, that this inflammation occupies exclusively the white lymphatic vessels of the cellular membrane of the several textures of the limb; for we are every way satisfied that redness is not necessary to inflammation, as we have elsewhere declared."*

Dr Dewees is thus wholly opposed to the doctrine of the identity of phlebitis and phlegmasia dolens. He urges one consideration, which must be allowed great weight. This is the frequent mortality of the first, and the rareness of death from the last. It seems strange that these facts have not been adverted to by those who have so zealously contended for their identity abroad, from Dr Davis to Dr Lee, the earliest and the latest who have urged their sameness. I took occasion some time since to ask an opinion on this subject of a physician of very extensive experience, and who holds a distinguished place in a medical school in a neighboring state. He said he had seen phlegmasia dolens as often, he thought, as falls to the lot of a physician of large practice; that he had never known it fatal. "So far from it," he added, "when I am attending a lying-in woman who has febrile symptoms, those of puerperal fever for instance, and I learn that a limb is swollen, painful, colorless, in short that phlegmasia dolens is present, I feel satisfied that she is safe, and freely express this opinion to her

* Op. Cit. pp. 83, 84.

friends." Let any one read Dr Hull's work on this disease, attend to his cases, and especially to their termination, and it seems hardly possible that he should arrive at the doctrine of its identity with phlebitis. In the time of attack ; the suddenness of the attack ; the violence of the immediate symptoms, and alike of those which were precursory ; the frequency and suddenness of death ; all these, and other like facts, seem almost conclusive against the doctrine which has found such able support abroad. While this opinion is thus freely expressed, let it be as freely acknowledged that the discussion of this subject, with whatever doctrinal views, has brought to light most important facts. The profession every where is largely indebted to Dr Davis, to Mr Arnott, and to Dr Lee, to Bouillard and Velpeau, for their laborious and faithful investigations of these diseases. It is to be hoped that the zeal and talent, which have been so liberally directed to this whole subject will be continued to it. I close this part of the paper with a single additional remark, and it is not an unimportant one. Whatever may be the strictly theoretical views in regard to the pathology of phlebitis, and phlegmasia dolens, however opposite they may be, there is no diversity of opinion respecting their practical indications. The great purpose of all who have written about them, in regard to treatment, is to subdue, by most active means, a disease, which, like phlebitis, has been so very fatal ; and, by like means, to diminish and shorten the sufferings of phlegmasia dolens.

The occasional suddenness of death, and the great, I may almost say general, mortality of inflammation of the veins, have been mentioned in the course of this communication. The attention of pathologists has been very particularly directed to the cause of death in this disease. This question is an interesting one, and it has received a variety of answers. Mr Hunter, in his *Essay on Inflammation of the Veins*, published in 1793, suggests, that where the veins remain unobstructed, pus may pass into the circulation, and this concurring with the general affection of the system, may destroy life." In another place Mr H. remarks, "But what is the particular circumstance which occasions their death, I have not been able to determine; it may either be, that the inflammation extends itself to the heart, or, that the matter secreted from the inside of the vein, passes along that tube in considerable quantity to the heart, and mixes with the blood." Mr Abernethy, Mr Hodgson, Mr Carmichael, and Sir Astley Cooper, do not differ from Mr Hunter in their views of the subject. According to Mr Travers, there is a difference between the cases in which pus is secreted, and those in which lymph only is effused. In the first, the fatal symptoms are those of common hectic; in the second, typhoid fever is produced. Modifications of these opinions have been offered by Breschet, Bouillaud, Ribes, Guthrie, and Arnott. Mr Arnott, in his paper already referred to, has collected a vast number of facts, and communicated much that has come under his own observation. He has been led to

direct his attention very particularly to those diseases which arise in the course of phlebitis, and during, or in consequence of which the fatal effects of this disease so frequently manifest themselves. His paper is a most valuable body of morbid anatomy, touching the disease about which he writes. He has examined every organ in the frame with great care, described every morbid appearance, and placed upon permanent record the ravages of the disease. No part of the body has escaped its influences. The larger organs, those which are more immediately within the range of morbid sympathies, as the brain, the lungs, the liver, &c.—and parts differently situated,—if I may so speak, more remote, smaller, of various textures, and different functions, the eye, for instance, and the smaller, and larger joints,—all these parts of the frame have become seriously diseased in phlebitis, have manifested such disease during life, and have left unequivocal evidence of its severity to be discovered after death. The following extracts from Mr Arnott's paper, comprise its closing paragraphs.

“Such are the facts which have induced me to conclude, that the inflammations and diseases which arise in remote situations after *injuries*, whether of the extremities or of the head, or after the *process of parturition*, are attributable to the existence of phlebitis in the part of the body primarily affected.

“In concluding these remarks, the object of which has been to point out the relation between the primary and secondary affections in phlebitis, and to

establish the introduction of pus, or other inflammatory secretion, from the surface of the vein into the circulation as the cause of the latter, I have not felt myself called upon to advance any opinion as to the manner in which this cause operates, in giving to some of the secondary affections their peculiar characters,—I allude more particularly to the depositions of pus and lymph, unattended by those changes in the texture of the parts, which usually precede the productions of these fluids. I think it right, however, to state, that I must not be considered as regarding the matter deposited to be actually that which has been brought into the circulation from the inflamed vein or veins. The disease of the eye, in which pus is not deposited, and the affection of the joints, exclusive of other considerations, clearly prove that the question is no longer one of a translation of matter merely, but one which involves the very difficult subject of the pathology of the blood, especially the share which diseased changes in this fluid have in the production of those phenomena, which we are in the habit of comprehending under the term of inflammation.”*

The question of the direct agency of phlebitis in producing death, still remains unanswered. Mr Hunter confesses his inability to decide it. Mr Arnott goes a step, and a very important one too, beyond his predecessors. But it may be still asked, how far his investigations of the secondary effects of phlebitis, so truly

* Op. cit. 123.

valuable as they are, do, though they carry us beyond the primary affection, bring us nearer to its true and whole nature. I have very recently met with some facts in regard to this subject, which seem quite new; and it would appear, that the observer was not acquainted with all that has been published in England relating to it. I refer to the observations of M. Dugés, Professor of Medicine in one of the French schools. M. Dugés has noticed depositions of a purulent fluid in the ovarian, or spermatic veins of the uterus in women, who have died of puerperal fever. A fact which had been announced by Dr Lee. But what is quite curious in these cases of M. D. is, that the pus could not be traced beyond those veins, which traverse the substance of the womb, and that the veins themselves were neither discolored, unequal in their caliber, or even thickened. He acknowledges, however, that he has in some other cases met with true phlebitis of the ovarian veins. A question arises as to the source of the purulent matter in the first mentioned cases. M. D. explains its presence in the veins, by absorption,—that it is secreted by the peritoneum which covers the womb, and it may be also by the cellular tissue, and that it is taken up thence by the veins. Here then is purulent matter in the blood vessels, and as no adhesions exist between the sides of the veins, this fluid must be intimately blended with the circulating blood. The only difficulty which presents itself here, is the fact that purulent matter should remain *alone*, (for no blood is found

with it in these veins,) in this portion of the venous system, when by the showing of M. D. no obstruction of the veins existed.*

The question of the cause of death in phlebitis has not been introduced here for the purpose of giving to it an answer. Let this be what it may, death takes place under circumstances of general disease and local lesion, quite too grave to leave any occasion for surprise at the event. Mr Arnott would seem to find a cause for the general disturbance, and local disease, in changes which the blood may have undergone, either from circulating in diseased vessels, or having mixed with it pus, or other morbid secretions from the veins themselves. It is altogether a subject of curious and very interesting inquiry. We divide, or tie up large arteries, in whatever situation, in some of the most common operations in surgery, but how rarely is there any inconvenience experienced from so doing? On the other hand, the smallest puncture of a vein, or a ligature passed about one, though done with the greatest care, and though the vessel be ever so superficial, may produce local disease, trifling it may be in extent, but which shall excite general, and remote local affections, of the most distressing and fatal character.

* Mémoire sur les traces cadaveriques de la Péritonite Puerpérale. Par M. Ant. Dugés, Professeur à la Faculté de Montpellier. Jour. Hebdom. de Med. No. 70. Janv. 1830.

