The mesenteric glands are generally enlarged and hardened in all chronic diarrhoeas, but especially in the white flux. The liver is not necessarily altered, even in the white diarrhoea; but it has been found flaccid, anæmic, and small or of natural size, but without any decided morbid appearance. It occasionally presents patches of fatty degeneration; but this is not peculiar to diarrhoea." (Article "Diarrhoea," in Reynolds's *System of Medicine*, vol. i, pp. 96, 97.)

Treatment.—The commencement of chronic diarrhoea is often insidious, and the disease gains ground before radical measures are resorted to for its removal. In the cases that come under notice at home, the most essential step towards recovery has been taken by returning to Europe; but there remains much to be done to further the improvement, which may probably have advanced considerably during the sea-voyage.

The successful treatment of chronic diarrhoea depends very much on the patient's resolution and perseverance in carrying out the instructions he receives. Diet is the most important element in it, and this must be strictly regulated. All irritating or indigestible and solid food must be at first entirely prohibited, and only that which is most easily assimilated allowed. Milk, alone, or (better) diluted with about one-fourth or one-third part of lime-water, given in small quantities and at frequent intervals—say a wineglassful or small tumblerful every second or third hour, in some cases more frequently—will generally be found to answer, and may be continued for a long time, to the exclusion of all other food, with great advantage. Milk undiluted will not always agree, as may be seen by its causing irritation, frequent purgation, and the passage of undigested caseine. But it is quite sufficient for all purposes of nutrition; and by the time the patient finds that he is taking three or four quarts a day, he will have realised that he obtains from it all that is needed to support health and strength. At first he may lose weight, but soon regains and increases it. Beef-tea, raw beef-juice, or other plain animal broth, free from extraneous matters; a raw egg beaten up with milk, to which a teaspoonful of brandy may be added, will sometimes be tolerated. Arrowroot, tapioca, or other plain farinaceous food, will sometimes, but not always, answer—certainly not at first. Tea and coffee, as a general rule, disagree, and should be avoided. Stimulants, especially for those who have long been habituated to their use, may be needed. The best are a little whiskey or brandy diluted with Vals or Vichy or potash water; but these should be laid aside if they increase the action of the bowels. A little good port wine may be tried; but, as a general rule, I find all wines unsuitable. Regularity in the times of administration and in the quantity of nourishment given is most essential. The greatest care should be taken not to give too much of anything at a time, and at once to discontinue whatever appears to disagree.

In concluding, I must express the great obligation that I am under to Professor Aitken, F.R.S., of Netley, for the valuable preparations he has allowed me to place before you from the Netley Museum, as well as for much valuable information derived from his writings. I am also especially indebted to Dr. McConnell of Calcutta for the interesting recent specimens and cases with which I have been able to make these lectures, I hope, of some practical value; to Drs. K. McLeod, Cayley, and Chumdra, of the Medical College, for their valuable clinical contributions; and also to Dr. Jones of the Calcutta General Hospital, Dr. Coull Mackenzie and Khan Bahadoor Tameez Khan for most valuable reports; as also to Mr. Buckland of the Civil Service, for valuable information regarding the shipping population of Calcutta; to my old friend and colleague Dr. Chevers, for his valuable communication on the exuvie of dysentery; to Surgeon-Major Dr. A. Clarke, A.M.D., and Fleet-Surgeon Dr. Lilburn, R.N., for valuable statistical information; and, lastly, to the sanitary officers, who are doing such important work in India; and to the many authors, ancient and modern, from whom I have derived information.

It only remains for me to thank you, Sir, and the members of the Society, for the indulgent patience with which you and they have listened to me.

ST. MARY'S HOSPITAL.—A *conversazione* was given on Wednesday evening last in the Board-room, by the St. Mary's Hospital Medical Society, of which Mr. Herbert Page is President. The company was numerous, and included the medical officers of the hospital, many old pupils, practitioners of the neighbourhood, and present students. The objects exhibited comprised scientific instruments of various kinds, pictures, china, and numerous microscopical and other preparations. Several performances on a grand piano were given in the course of the evening by Messrs. E. F. Clarke and C. Graham Hanell, who thereby contributed much to the pleasure of the guests.

ON THE CURABILITY OF ATTACKS OF ACUTE PHTHISIS.*

By MCCALL ANDERSON, M.D.,

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UNDER the term "acute phthisis," we do not class ordinary cases of consumption accompanied by fever; for the disease never runs its course without more or less elevation of temperature, at some period or another, especially when new portions of lung-tissue are being invaded. But, from a clinical point of view, we apply it to acute pulmonary affections, accompanied by high and continuous fever, which run a rapid course, and lead to more or less destruction of lung-tissue, if the patient survive long enough—cases which, in their symptoms, at first sight, bear some resemblance to typhus, or to severe attacks of typhoid fever.

There are probably three varieties of this disease:

1. "Acute pulmonary tuberculosis," when the lungs are more or less abundantly studded with grey, semitransparent, miliary tubercles:

2. "Acute pneumonic phthisis," when the disease commences with pneumonia—generally acute catarrhal pneumonia—the exudation in connection with which undergoes caseous metamorphosis, followed by rapid and extensive destruction of the pulmonary tissue:

3. "Acute pneumonic phthisis," as above, which becomes secondarily complicated with the development of grey miliary tubercles.

As far as my experience goes, it is impossible, during life, to distinguish the second from the third variety; but the first may be at least suspected, when the disease sets in suddenly with high fever, great prostration, profuse perspiration, lividity, and great acceleration of breathing, with perversion of the pulse-respiration ratio—symptoms which, at first at all events, are out of all proportion to the results obtained from a physical examination of the chest.

It has been said of the cases which I formerly published, that they were not illustrations of true tubercular, but of pneumonic phthisis. Now, I do not think that this is true of all of them; but I am not much concerned in defending the position, as I would not be surprised if it turns out that acute pneumonic phthisis is the more necessarily fatal of the two, seeing that it leads to fearfully rapid and extensive destruction of lung-tissue, while in acute tubercular phthisis this is comparatively trifling; and that tubercle is not in itself necessarily fatal is well known, as is illustrated by an interesting case reported by Spencer Wells, in his work on *Diseases of the Ovaries*. This was the case of a young lady, aged 22, who had an enlargement of the abdomen, which, it was supposed, might be due to "a thin non-adherent unilocular ovarian cyst". Accordingly, a small incision was made below the umbilicus, and the peritoneum opened. "A large quantity of opalescent fluid escaped, and then the whole of the peritoneum was seen to be studded with myriads of tubercles. Some coils of small intestine were floating; but the great mass was bound down with the colon and omentum, all nodulated by tubercle, towards the back and upper part of the abdomen. The uterus and ovaries were felt to be of normal size, but their peritoneal coat was very rough." This patient made a good recovery, and has since married.

The general opinion of the profession, with regard to the fatality of acute phthisis, may be gathered from the following extracts.

Walshe observes that "the treatment of acute phthisis is far from being well understood; the rarity with which the disease is diagnosed explains this. Leudet, as a matter of experience, lauds the expectant method: better trust to the efforts of nature than run the risk of doing harm by purely tentative interference. Perhaps he is right. Still it is painful to look on, a mere spectator". (*Practical Treatise on Diseases of the Lungs*. Fourth edition, London: James Walton, 1871.)

Sir Thomas Watson, speaking of acute pneumonic phthisis, says: "Over cases of this acute nature, medicine can have very little effective control;" and, with reference to acute tubercular phthisis: "I can offer you no counsel as to the treatment of these sad cases; they baffle our art, and they are always, so far as I know, fatal. All that can be attempted is to assuage the severity of the most distressing symptoms." (*Principles and Practice of Physic*. Vol. ii. Fifth edition. London: Longmans, Green and Co. 1871.)

Trousseau's opinion is as follows; "In galloping phthisis, the prognosis is death. Death, sooner or later, is invariably the termination. Hitherto, art has unfortunately proved unable to contend against this redoubtable malady; it is still more distressing to know that we have

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not the power even to alleviate the condition of sufferers by whom we may be consulted." (*Clinical Medicine*, Vol. iii. The New Sydenham Society. London: 1870.)

Finally, Sir Robert Christison, in a letter to me, dated June 1877, remarks as follows: "Sceptics will say there is no satisfactory evidence of the presence of the peculiar forms of those diseases with which your treatise is concerned, except their presence on dissection. But I can say, in regard to your cases of consumption.....that your histories exactly correspond with those of all the cases of 'galloping' consumption which I have seen, and whose nature was demonstrated by examination after death. I used to see such cases not unfrequently, when I was hospital physician here; and was struck—paralysed, in short—by the utter hopelessness of accomplishing even any material palliation by any sort of treatment. Your success is, therefore, most remarkable."

The cases to which reference has just been made tend to show, that, if the disease is grappled with early and energetically, and with an expectation of success, the prognosis is much more favourable than is generally admitted; and I have only to add, that, since my first cases were published in the *Lancet*, more mature experience has still further corroborated the view which I then ventured to express.

The following is a short outline of the kind of treatment from which good results may sometimes be expected.

1. The services of a thoroughly trained and capable nurse are indispensable; for, without admirable nursing, there can be little hope of benefit from treatment. The patient should be fed constantly (every hour, or even sometimes every half-hour) with milk or soup; the latter, however, being avoided if there be any diarrhoea; and, in every case, stimulants (varying from about four to ten ounces daily) are required, but should be given in small quantities, frequently repeated.

2. Each night, at bedtime, a subcutaneous injection of sulphate of atropia (gr. 1-100th to 1-60th) is given. This not only acts as a sedative to the system, and tends to check perspiration, but likewise, I think, diminishes the secretion from the lungs, and helps to reduce the fever.

3. Remedies are given specially with the view of lowering the temperature; and this is a point of the utmost consequence, as the majority of the patients die consumed by the fever. With this object in view, one or more of the following three methods of treatment are employed:

(a) The application of iced cloths to the abdomen, in the manner and with the precautions fully detailed in a former communication. (*Lectures on Clinical Medicine, delivered in the Royal and Western Infirmary of Glasgow*, page 165. London: Macmillan and Co. 1877.)

(b) The administration daily, particularly shortly before the temperature tends to be highest, of from ten to thirty grains of quinine—given, as suggested by Liebermeister, either in a single dose, or within an hour.

(c) Niemeyer's antipyretic pill, composed of one grain of quinine, half a grain of digitalis, and a fourth of a grain of opium. The effect of the digitalis must be carefully watched; and it must be omitted, for a time at least, if the pulse become preternaturally slow and irregular, and the secretion of urine very scanty; and it may be necessary to increase the dose of the opium even to three-fourths of a grain, with the view of checking diarrhoea or abundant secretion from the lungs.

Such is an outline, in a general way, of the kind of treatment by which, in my opinion, the progress of the disease may sometimes be arrested; but, of course, no two cases can be treated exactly alike; and the surroundings of each must be carefully studied, and special treatment adapted to special symptoms and complications.

I have now had the opportunity of treating, or of assisting throughout in the treatment of eight cases of acute phthisis, on the above plan; and of these, three have proved fatal. In two of them, the disease was so far advanced, and the amount of lung-tissue destroyed so great, when treatment was commenced, that there was hardly any hope of improvement from the first. In one of these only was a *post mortem* examination obtained, the results of which were published in the communication already alluded to. The third case proved fatal, owing to perforation of the left lung, which was found to be studded with grey miliary tubercles. Of the remaining five cases, one is at present under treatment, and the result is therefore doubtful—although, meantime, there is decided improvement, especially as regards the fever, which is now almost in abeyance. The four remaining cases have terminated in recovery. One of these has not yet been published; and is inserted, therefore, in the JOURNAL as an appendix, along with the case which proved fatal by perforation.

APPENDIX.

Case of Acute Phthisis illustrating the question of Diagnosis; Fatal from Perforation.—Jane D., aged 19, mill-girl, was admitted into the Western Infirmary of Glasgow on March 1st, 1880, having been seen

by me on the previous day, in consultation with Dr. William Young of Parkhead. The history of her illness, as obtained from her mother, was that, in the beginning of winter—it might be November—she caught cold, but not on account of any unusual exposure; and since then, she had a trifling cough.

Two months ago, while at work, she had an attack of hæmoptysis, and also during the same evening after going home; but, although the quantity of blood was said to have been considerable, no more precise estimate could be obtained. The blood at first was said to have been bright in colour, rather thickish, and not frothy. It continued to be expectorated during the next three days at frequent intervals, and, for some days following, she continued to have blood-tinged sputa. Previously to this, the cough was unaccompanied by expectoration, but a pain was occasionally complained of under the left nipple, and also at times under the left clavicle, during the act of coughing. About four weeks before admission, her appetite began to fail; and, ten days ago, she returned from her work complaining of shivering and general *malaise*, followed by burning heat of skin, and perspiration. At this time, too, the cough became more frequent, and she began to suffer from some shortness of breath. For the last few days, her bowels, which were generally costive, had become rather loose.

She seemed to have enjoyed good health until her present illness began; indeed, her mother said she was exceptionally healthy, and very stout. Menstruation began about fifteen, and had been very irregular, the last flow having been about four months ago. Her father and mother were alive and well. She was one of a family of eleven, three of whom died at the ages of ten, eighteen, and twenty, respectively, of consumption; the first said to have been of galloping consumption, after nine weeks' illness.

Examination on Morning of Admission.—There were great prostration and slight emaciation. Sweating was profuse and pretty constant. Decubitus was dorsal with the head elevated. She had great shortness of breath; slight lividity of the cheeks; the tongue was dry and cracked; great thirst; complete anorexia; bowels loose (three or four motions in twenty-four hours). Cough was frequent and soft, but there was no expectoration. The pulse was so rapid and feeble, that it could not be counted; but the cardiac pulsations were 160 per minute; respirations 60. The abdomen was natural; no distension; no tenderness anywhere, even on the firmest pressure; and no eruption. *Right Lung:* There was no dulness anywhere, but bronchitic *râles* all over; moist and pretty abundant at the base, musical above. *Left Lung:* Breathing was feeble over the whole lung, with distinct dulness and resistance on percussion in the left infraclavicular region, from the second rib downwards for a couple of inches, and to a less extent in the corresponding region behind. In the last situation, there was indistinct subcrepitant *râle*, which, however, was more decided at the base. The urine was acid, scanty, with a copious deposit of urates; specific gravity 1028. The chlorides were normal; no albumen. For the temperature, pulse, and respiration, see the accompanying table.

		T.	P.	R.			T.	P.	R.
March 1,	9 A.M.	101.6	160 (2)	60	March 3,	3 P.M.	101.2	—	—
"	12 "	100.4	—	—	"	6 "	101.6	—	—
"	3 P.M.	100.4	—	—	"	9 "	102.0	152	44
"	6 "	102.6	—	—	"	12 "	101.2	—	—
"	9 "	104.0	150	70	"	4, 3 A.M.	101.0	—	—
"	12 "	102.2	—	—	"	6 "	100.2	—	—
"	2, 3 A.M.	101.8	—	—	"	9 "	100.6	140	60
"	6 "	101.2	—	—	"	12 "	100.0	—	—
"	9 "	101.4	150	60	"	3 P.M.	100.6	—	—
"	12 "	101.4	—	—	"	6 "	100.2	—	—
"	3 P.M.	102.4	—	—	"	9 "	100.4	154 (b)	60
"	6 "	102.4	—	—	"	12 "	101.4	—	—
"	9 "	104.4	140	58	"	5, 3 A.M.	102.2	—	—
"	12 "	101.6	—	—	"	6 "	101.0	—	—
"	3, 6 A.M.	100.2	—	—	"	9 "	99.2	160 (a)	62
"	9 "	100.4	140	58	"	12 "	98.8	—	—
"	12 "	101.0	—	—	"	3 P.M.	103.0	—	—

a, cardiac; b, irregular.

The opinion formed with regard to the case was, that it was one of acute phthisis, very probably tubercular; but, as some doubt had been thrown on the accuracy of my diagnosis in former cases, I determined to get the opinion of two of my colleagues, who, however, could not satisfy themselves as to the nature of the case.

The patient died on March 5th, five days after admission. The *post mortem* examination was made by Dr. Foulis, with the following result. The body was not emaciated. On opening the chest, the left lung was found collapsed; and the left pleura, which was covered with a thin grey layer of very recent soft lymph, was filled partly by air and partly by slightly turbid serum. There were a few old adhesions near the left apex. The left lung was quite compressed, and flattened against the spine. An attempt was made to detect a possible rupture in the lung-tissue, by filling the chest with water and inflating from the trachea,

but without success. On laying the lung open, it was seen to be studded with numerous milary tubercles, in groups and single. At the lower and anterior part of the lung was a small pus-filled cavity, about the size of a plum; and, near it, several minute cavities. In the vicinity of these cavities, the tubercles were softer than elsewhere. In the right lung, the tissue was bright red, crepitant, and free from tubercles, except at one or two spots. On the posterior wall of the larynx was a slightly eroded patch, with an apparent infiltration of the mucous glands near it. No tubercles were seen in any other organ.

In this case, the fatal issue was evidently due to the complication of perforation of the lung.

Case of Acute Phthisis, terminating in Recovery.—Adam B., aged 25, carter, was admitted May 20th, 1879. His father and mother seemed to have died of heart-disease; and, of a family of five, two died in infancy, while a brother and sister, both older than himself, were alive and well. He had been very intemperate in his habits, but never had an hour's sickness until the onset of the present illness, four weeks before admission. It set in on a Sunday morning with a feeling of sickness, which caused him to return to bed. In the evening, he began to cough, and expectorated blood, at first black and clotted, he said; afterwards, bright red. The hæmorrhage continued for four days, but in greatly diminished quantity, and consisted more of a blood-stained spit than of unmixed blood. The cough continued severe all this time, but disappeared in great measure with the hæmoptysis, about the fourth or fifth day. The day after the onset of the hæmorrhage, he experienced severe pain in the right side of the chest, referred to the mammary and suprascapular regions, aggravated by coughing, and by lying on the right side. A week after he lay down, the bowels began to be troublesome, moving frequently as often as five times in twenty-four hours; the stools being thin, and yellowish in colour, but not very copious. They had continued in this state ever since. He had never passed any blood. At first, the urine was passed very frequently, as often as every five minutes, though not much at a time, but there was no trouble of that kind now.

Examination on Admission.—The patient was much emaciated, and very weak and exhausted. The skin was dry and hot, with perspirations at night, and temperature 103°; pulse 110, feeble; respirations 40, shallow and noisy; pulse-respiration ratio 2½:1. He had occasional slight cough, with scanty clear mucous expectoration. Decubitus was dorsal. He had a slight flush on each cheek, and slight lividity of lips. The *alæ nasi* dilated on inspiration. The tongue was slightly coated, and moist. He had anorexia. The bowels were loose. There was no distension of the abdomen; no gurgling or tenderness in either iliac region; no eruption. The urine was 32 ounces, high-coloured, acid, of specific gravity 1025; it contained a trace of bile, but no albumen. At the base of the right lung were signs of very moderate pleuritic effusion, viz., slight bulging with defective movements, marked dullness, feeble breathing, diminished fremitus and resonance. At the left apex (especially in the supraclavicular and infraclavicular regions) were defective movements, slight flattening, moderate dullness. Moist (subcrepitant), mixed now and then with dry, *râles* were heard, and there was increased fremitus and resonance. At the base of the same lung posteriorly, there was marked dullness, with very coarse crackling *râle*, and increased fremitus and resonance; over the rest of the lung, there was a general want of resonance, with a mixture of dry and moist (subcrepitant) *râles*. There was no evidence of disease in any other organ. For temperature, pulse, and respirations, see accompanying table.

	T.	P.	R.				
May 23, 11 A.M.	102.4	—	—	May 26, 5 P.M.	101.4	108	36
" 2 P.M.	103.8	—	—	" 8 "	102.0	112	32
" 5 "	103.4	—	—	" 11 "	—	104	27
" 8 "	101.0	—	—	" 27, 2 A.M.	101.4	104	28
" 11 "	—	—	—	" 5 "	100.4	110	26
" 24, 2 A.M.	101.4	—	—	" 8 "	101.4	—	28
" 5 "	—	—	—	" 11 "	—	108	28
" 8 "	101.0	—	—	" 2 P.M.	102.2	112	28
" 11 "	102.2	—	—	" 5 "	102.2	112	26
" 2 P.M.	103.0	—	—	" 8 "	103.0	114	32
" 5 "	102.0	—	—	" 11 "	(b) 102.0	108	25
" 8 "	102.0	—	—	" 28, 2 A.M.	105.0	104	22
" 11 "	102.0	—	—	" 5 "	(c) 101.0	102	22
" 25, 2 A.M.	102.6	—	—	" 8 "	100.4	106	23
" 5 "	100.4	—	—	" 11 "	(d) 100.6	108	24
" 8 "	101.6	—	—	" 2 P.M.	100.4	106	26
" 11 "	101.6	—	—	" 5 "	102.2	110	30
" 2 P.M.	103.8	—	—	" 8 "	102.6	110	30
" 5 "	102.0	—	—	" 11 "	101.6	100	24
" 8 "	—	—	—	" 29, 2 A.M.	—	—	—
" 11 "	102.4	—	—	" 5 "	102.2	104	24
" 26, 2 A.M.	102.0	—	—	" 8 "	100.8	106	27
" 5 "	100.6	—	—	" 11 "	100.0	96	30
" 8 "	—	—	—	" 2 P.M. (c)	101.0	102	28
" 11 "	101.6	108	30	" 5 "	102.0	112	36
" 2 P.M. (a)	101.6	—	32	" 8 "	101.6	—	26
				" 11 "	100.8	95	26

May 30, 2 A.M.	100.8	96	26	June 9, 2 A.M.	100.0	—	20
" 5 "	100.6	—	24	" 5 "	99.8	78	—
" 8 "	101.0	90	32	" 8 "	98.6	—	18
" 11 "	99.0	90	36	" 11 "	99.0	78	—
" 2 P.M.	101.0	110	27	" 2 P.M.	—	88	28
" 5 "	103.0	114	36	" 5 "	100.4	82	24
" 8 "	101.0	96	26	" 8 "	99.4	88	24
" 11 "	(e) 101.0	96	24	" 11 "	(f) 99.8	80	24
" 31, 2 A.M.	101.2	99	26	" 10, 2 A.M.	99.8	86	19
" 5 "	102.0	90	24	" 5 "	99.4	82	24
" 8 "	102.2	102	24	" 8 "	99.6	80	24
" 11 "	101.0	92	26	" 11 "	99.1	—	26
" 2 P.M. (c)	100.0	—	28	" 2 P.M.	99.6	82	26
" 5 "	103.4	108	28	" 5 "	99.2	88	24
" 8 "	102.0	—	24	" 8 "	99.0	82	24
" 11 "	101.0	92	22	" 11 "	(h) 99.6	—	18
June 1, 2 A.M.	99.8	92	21	" 11, 2 A.M.	99.8	78	20
" 5 "	99.6	88	24	" 5 "	99.2	—	—
" 8 "	99.8	—	28	" 8 "	99.6	82	24
" 11 "	99.8	96	24	" 11 "	98.0	78	21
" 2 P.M. (c)	99.8	81	23	" 2 P.M.	—	88	24
" 5 "	101.4	96	22	" 5 "	99.4	88	24
" 8 "	100.4	96	22	" 8 "	99.2	84	22
" 11 "	(e) 99.8	92	26	" 11 "	100.2	82	—
" 2, 2 A.M.	99.6	90	26	" 12, 2 A.M.	99.8	82	22
" 5 "	—	86	24	" 5 "	99.8	88	20
" 8 "	101.2	92	30	" 8 "	99.2	84	24
" 11 "	100.0	88	28	" 11 "	98.4	84	20
" 2 P.M.	99.8	88	28	" 2 P.M.	99.6	—	24
" 5 "	(c) —	88	28	" 5 "	100.2	88	—
" 8 "	102.4	106	35	" 8 "	100.0	90	30
" 11 "	(f) 100.0	90	21	" 11 "	99.2	84	24
" 3, 2 A.M.	99.0	82	18	" 13, 2 A.M.	99.4	82	20
" 5 "	—	—	22	" 5 "	99.8	80	26
" 8 "	101.0	88	24	" 8 "	98.6	78	26
" 11 "	101.6	—	26	" 11 "	99.2	88	24
" 2 P.M.	101.4	—	26	" 2 P.M.	—	88	24
" 5 "	101.6	—	28	" 5 "	99.6	85	24
" 8 "	(c) 101.4	88	28	" 8 "	99.0	88	24
" 11 "	(g) 102.6	92	22	" 11 "	(h) 99.8	80	18
" 4, 2 A.M.	101.4	—	19	" 14, 2 P.M.	98.6	78	—
" 5 "	100.6	76	19	" 5 "	99.0	82	—
" 8 "	100.8	92	—	" 8 "	—	—	—
" 11 "	101.2	92	26	" 11 "	—	80	24
" 2 P.M.	100.8	84	28	" 2 P.M.	99.0	84	24
" 5 "	(c) 101.4	88	25	" 5 "	99.2	84	26
" 8 "	101.2	92	27	" 8 "	99.6	84	26
" 11 "	(h) 100.6	86	22	" 11 "	99.6	80	—
" 5, 2 A.M.	101.0	86	19	" 15, 2 A.M.	99.2	78	18
" 5 "	—	78	18	" 5 "	99.2	86	22
" 8 "	98.6	86	24	" 8 "	99.8	88	24
" 11 "	99.0	80	24	" 11 "	—	80	24
" 2 P.M.	100.0	—	24	" 2 P.M.	98.6	—	24
" 5 "	(c) —	—	—	" 5 "	99.8	80	24
" 8 "	101.6	92	26	" 8 "	99.2	88	26
" 11 "	(i) 100.2	86	22	" 11 "	99.8	82	22
" 6, 2 A.M.	99.8	86	24	" 16, 2 A.M.	—	82	20
" 5 "	100.6	78	22	" 5 "	99.0	84	24
" 8 "	—	84	26	" 8 "	99.0	80	20
" 11 "	98.8	84	26	" 11 "	98.6	—	22
" 2 P.M.	98.8	80	26	" 2 P.M.	98.4	—	22
" 5 "	(k) —	84	30	" 5 "	98.4	80	24
" 8 "	101.4	84	28	" 8 "	99.4	—	—
" 11 "	(l) —	94	24	" 11 "	—	78	18
" 7, 2 A.M.	—	84	22	" 17, 2 A.M.	98.4	—	—
" 5 "	98.6	83	22	" 5 "	99.0	—	26
" 8 "	99.8	92	26	" 8 "	99.0	84	—
" 11 "	100.0	85	24	" 11 "	98.4	84	—
" 2 P.M.	—	88	24	" 2 P.M.	98.4	88	22
" 5 "	99.6	—	28	" 5 "	98.8	80	24
" 8 "	(f) —	88	—	" 8 "	99.0	82	24
" 11 "	100.4	94	28	" 11 "	99.2	80	18
" 8, 2 A.M. (m)	—	90	22	" 18, 2 A.M.	98.8	80	—
" 5 "	99.2	82	19	" 5 "	98.8	82	—
" 8 "	99.8	92	24	" 8 "	98.6	80	24
" 11 "	98.4	90	24	" 11 "	98.6	80	24
" 2 P.M.	99.4	80	20	" 2 P.M.	98.6	80	24
" 5 "	100.4	85	—	" 5 "	99.2	80	26
" 8 "	—	90	26	" 8 "	99.0	80	26
" 11 "	(l) 99.8	—	20	" 11 "	98.6	80	20

(a) First pill of quinine, digitalis, and opium.

(c) Ten grains of quinine.

(e) 1-100th grain of atropia.

(g) 1-85th grain of atropia.

(i) 1-75th grain of atropia.

(m) Fifteen grains of chloral.

(b) Ninth pill.

(d) Pills resumed; ice-cloths begun.

(f) 1-90th grain of atropia.

(h) 1-80th grain of atropia.

(l) 1-70th grain of atropia.

(n) Atropia.

Treatment.—May 26th. He had milk or soup every hour, the latter being avoided so long as there was looseness; also quinine one grain, digitalis half a grain, opium half a grain, every four hours. The opium in the pills was increased on the 30th to three-fourths of a grain, on account of the looseness; but, on June 10th, as the patient was sweating a good deal, as the other symptoms were moderating, and as there had been no motion for four days, the pills were diminished to three daily.

On May 28th, iced cloths were applied to the abdomen for half an hour every two hours (it was afterwards ascertained that they had not been thoroughly used until the evening of June 4th, after which the

temperature fell more decidedly). In the latter stages, they were omitted whenever the temperature was below 100°. At the same date (May 28), two drachms of brandy every three hours were prescribed.

May 30th. Subcutaneous injections of atropia each night were commenced— $\frac{1}{16}$ of a grain, gradually increased to $\frac{1}{8}$. Half a dozen times during the course of the illness, a dose of ten grains of quinine was given when the temperature tended to be high, which was generally in the afternoon or evening; and occasionally the body was sponged with iced vinegar and water.

June 10th. The patient looked and felt very well, though weak and thin. The tongue was moist, and only slightly coated with a white fur. The appetite was much improved. There had been no movement of the bowels for four days. The perspirations were still considerable, but only in the mornings. Pulse 80, of fair strength; respirations 24; pulse-respiration ratio $3\frac{1}{2} : 1$. The temperature during the last twenty-four hours never rose to 100°, the highest being 99.8°; and, during the previous twenty-four hours, it only reached 100° on three occasions, and twice was normal. The cough was less troublesome than on admission; expectoration was very scanty, and consisted of clear mucus. The physical signs were improved to this extent, that the very coarse *râles* at the left base had disappeared, being replaced by *râles* which were partly musical and partly moist. The effect of the digitalis on the secretion of urine was well marked; for, on the four days preceding the administration of the pills, the amount discharged was 32, 30, 26, and 23 ounces; and, on the following four days, 60, 72, 90, and 73 ounces.

It is unnecessary to give the whole of the reports, which were taken from time to time, but the following are sufficient to illustrate the progress towards recovery.

June 17th. There was decided improvement in the physical signs, the *râles* having almost disappeared from the chest, except at the left base, where, however, they were much less distinct than formerly. The temperature for the last few days had been normal, or nearly so, and there had been very little perspiration. The digestion was fair, and the bowels regular, though the motions were still inclined to be pale and loose. Three moderate meals daily were now allowed, and the atropia was stopped. On the 22nd, the pills were likewise omitted; but, on the 25th, as the perspirations had slightly returned, the atropia injections were resumed.

July 2nd. There was still slight expectoration, which was yellower than formerly; respirations 22; pulse-respiration ratio normal, the pulse being 86, and of good strength. All *râles* had disappeared from the left side of the chest, with the exception of occasional musical rhonchi posteriorly. The signs of effusion at the right base were diminishing. The temperature was normal, and the digestion natural; but the motions were still occasionally inclined to looseness. He was having good diet, including beef-steaks, etc.; and on the 1st, cod-liver oil in small doses was commenced, but was omitted on July 3rd on account of looseness, which recurred when the oil was resumed on the 8th. For this, a mixture of morphia and bismuth was given.

August 1st. He was going on favourably in every respect, and was rapidly gaining flesh and strength. The diarrhoea and perspirations had completely disappeared. Pulse 84, regular, of good strength; respirations 18. The expectoration was almost gone. The *râles* had disappeared from the chest altogether, and the dulness on percussion was much less pronounced than formerly, though there were still signs of moderate effusion at the right base. He was now taking six drachms of cod-liver oil daily, which was gradually to be increased to an ounce and a half. The morphia and bismuth mixture, from which he had derived much benefit, was continued, as also two ounces of brandy; and the atropia injections were ordered to be given every second night, or when necessary. He now walked out in the grounds occasionally.

August 14th. There was steady improvement. All the symptoms mentioned in the last report were less pronounced; in particular, there was distinct diminution in the dulness all over the chest. He was much fatter, and there was now a good deal of colour in his cheeks.

August 29th. He was now practically convalescent. There were no general symptoms whatever. His colour was excellent, and he had gained three-quarters of a pound within the last week. He had neither cough nor expectoration. Respirations 16 per minute. There was no trace of *râle* in any part of the chest, and the signs of pleuritic effusion at the right base were steadily diminishing. At the left base, the respiratory murmur was still somewhat feeble; and at the infraclavicular region there remained flattening, defective resonance, and harsh breathing. There was also dulness in the suprascapular region.

October 10th. As the patient was continuing to improve steadily, and as Dr. McVail, who was acting for me, was able to corroborate the statements in the last report, he was sent to Lenzie Convalescent Home.

This patient was readmitted at my request for a few days on November 27th, and was examined, with the following result, on the 30th. At the left apex, there was slight flattening with defective expansion, and slight dulness on percussion; the breathing was a little jerky, and the heart-sounds very loud. The heart had been drawn up, the apex being nearly at the nipple. At the left base, there was still some dulness remaining, but the breathing was almost natural; and, at the right base, where the effusion had been, there was also some dulness, and the breathing was slightly feeble. There were no chest symptoms, and he felt in perfect health.

The following note shows his progressive increase in weight:

	St. Lbs.
August 18th.....	9 1
„ 25th.....	9 1 $\frac{3}{4}$
September 1st.....	9 4 $\frac{1}{2}$
„ 10th.....	9 5
„ 15th.....	9 7 $\frac{1}{4}$
„ 29th.....	9 9
October 6th.....	9 9 $\frac{1}{2}$
December 11th.....	9 11 $\frac{3}{4}$

Those who are specially interested in the subject will find the reports of the three other cases in the volume previously referred to.

ETHER *v.* CHLOROFORM.

By J. C. S. JENNINGS, F.R.C.S.Eng.

A DISCUSSION having been carried on in the pages of the BRITISH MEDICAL JOURNAL, during the month of November, upon the very important topic of "Ether *v.* Chloroform", by many who are competent to judge of, and endorse the very clear, and, to my mind, convincing statements and arguments of Mr. Jonathan Hutchinson, published on November 6th, I have thought it well to make a few remarks upon the subject; because it has been my practice, for many years, with very few exceptions, to use ether, instead of chloroform, in all cases where there are no pulmonary or bronchial affections, which appear to render it inadmissible—more especially in dislocations of the important joints, or in severe fractures, whether simple, compound, or comminuted. And it certainly is the duty, as it is to the comfort, of every surgeon engaged in provincial practice, who is liable to be called on at any moment, alone and unassisted, to have at his command an agent, safe and trustworthy, which does not require the help of any skilled assistant; and which, besides being reliable, is available in most cases of sudden emergency, also in many of the minor operations—such as those simply involving sections of the skin, removal of subcutaneous tumours, or dentistry. The question frequently is forced on my mind, whether recourse is not recklessly had to both the above named anæsthetics when local anæsthesia can be readily produced either by freezing mixtures, or by Richardson's ether spray.

A few years since, a paper was read at one of our meetings of the Bath and Bristol Branch, recording a death, after the administration of chloroform in a case of herniotomy. I took part in the discussion; and was then urged, by some of the members of the Branch, to give the results of my practice, with regard to herniotomy, without the administration of chloroform, and under circumstances generally considered adverse to its probable success. I read a paper at a meeting of that Branch of the Association, to show that it was frequently administered without any actual or urgent necessity for its use; and I endeavoured to prove the correctness of the views I held by reference to the eight subjoined cases of strangulated hernia, in which I had easily performed herniotomy without the aid of that or any other anæsthetic; and in all cases, excepting one in which gangrene of the bowel had commenced, with satisfactory results and speedy recovery.

CASE 1. *Strangulated Femoral Hernia*.—On July 24th, 1851, I was hastily called on, at 10 P.M., to visit, at a distance of six miles, Maria K., aged 45. She had had diseased hip-joint since a girl, which had retarded the growth of the lower extremity. The thigh was flexed on the abdomen, and the knee crossed over the other thigh, so that she was not aware of the existence of the hernia in the deep sulcus thus formed in the femoral region. For some days she had bilious, followed by faecal, vomiting. After having in vain tried the taxis, I operated by the flickering light of a dip-candle, held by an old woman. I found great difficulty in introducing the finger-nail beneath the tense ligament, owing to the rigid and flexed condition of the thigh, and almost required a hernia-knife with double the usual curve. After dividing the falciform process and fibres of the fascia propria, the bowel was returned without opening the sac. A dose of liquor opii was then given, and vomiting did not return. On August 19th, I found her quite well.