### The Therapeutical Society of New York.

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## THE THERAPEUTICAL SOCIETY

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# NEW YORK.

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THE sixth Stated Meeting was held February 14, 1879, the President, Dr. LEAMING, in the chair.

The Committee on Restoratives, through its Chairman, Dr. ANDREW H. SMITH, presented the following report:

#### REPORT ON DEFIBRINATED BLOOD FOR RECTAL ALIMENTATION.

MR. PRESIDENT AND GENTLEMEN: At a meeting of this Society held in April of last year, a very brief preliminary report was presented by the Committee on Restoratives on the subject of the use of defibrinated blood for rectal alimentation. This report, brief as it was, served the purpose for which it was intended, viz., to call the attention of the Society to the subject, and to enlist the coöperation of the members in giving the plan of treatment a fair trial. As the result, we have now upward of 60 cases upon which to base a report, which, if not final, will at least go far toward establishing the claim of this to rank with other received methods of treatment in cases of imperfect nutrition.

It will be noted that only two or three of the cases which will be presented are such as have heretofore been supposed to furnish the indications for rectal alimentation, the rectum being used in the remainder as only subsidiary to the stomach.

The report covers 63 cases. Of these, 38 cases were of pulmonary phthisis in every stage, some of them presenting large cavities, and several being within a few days of the fatal termination. Eight of these could not tolerate the injections, either because of irritability of the rectum or on account of severe and persistent abdominal colic even when the dose was reduced to two ounces and tr. opii added. This leaves 30 cases in which the treatment had a more or less thorough trial. Of these, 10 showed no effect which could fairly be attributed to the injections. Some were improving before the treatment was begun, and continued improving at about the same rate during its continuance. Others were losing ground, and their downward tendency seemed not to be checked in any appreciable degree. These cases have therefore been regarded as not affected either way by the treatment.

We have, therefore, 20 cases left in which positive benefit seems to have attended the use of the blood. This benefit was expressed sometimes by a decided gain in weight, in other cases by improved appetite and increased vigor, in others by cessation of night-sweats or by diminished cough. The difficulty in estimating accurately the effect of any treatment in phthisis must be borne in mind, as the condition of the patient under any plan is liable to considerable fluctuations. In these observations, however, the point principally kept in view was the effect upon nutrition, it being taken for granted that anything which improves nutrition exerts a favorable influence upon the progress of the case.

It must not be forgotten that the hospital patients were all of them receiving already the usual house treatment, consisting of cod-liver oil and, in advanced cases, whisky or brandy, with expectorants and anodynes as indicated, and atropine, sulphuric acid, oxide of zinc, etc., for night-sweats when present, together with quinine if the temperature was high. The enemata of blood were simply added to this treatment, so that it may fairly be claimed that the benefit which followed was over and above what might have been expected from the usual methods.

CASES I. to VIII. include those already mentioned in which the enemata were not retained.

CASE IX. Reported by Dr. George Bayles.—Girl, twelve years old. Phthisis. Quantity given not stated. Much improved. In six weeks gained four pounds in weight. Night-sweats ceased, cough abated, appetite improved.

CASE X. Dr. Bayles.—Man, forty-five years of age. Phthisis. Blood used for twenty days, when the treatment was given up on acount of diarrhœa.

CASE XI. Dr. Bayles.-Woman. Phthisis, third stage. Blood used alternately with milk, eggs, etc., by rectum. Patient sustained for a while, but finally sank and died.

CASE XII. Reported by Dr. O. B. Douglas.—Young lady. Phthisis, second stage. Coughed badly; no appetite; greatly emaciated; frequent vomiting; slept but poorly, and had exhausting night-sweats. Ordered three ounces blood by enema twice daily. Coughed less and slept better the night following. Injections increased gradually to five ounces three times a day. In twenty-four days weight increased about five pounds, and there was marked improvement in every respect. The dejections seldom showed traces of blood. CASE XIII. Reported by Dr. A. E. M. Purdy.—Young gentleman from Chicago. Phthisis, second stage, with diarrhœa, supposed to be tubercular, and which had resisted treatment in Chicago, and hal become so much worse here that he was obliged to defer a contemplated journey to Texas, which had been recommended. After exhausting the usual methods of treatment for the diarrhœa, Dr. Purdy ordered injections of an ounce and a half of blood twice a day, increased the next day to four ounces three times a day. The third day the diarrhœa had ceased and was replaced by constipation, and in eight days the patient had so far improved that he started on his journey South.

CASE XIV. Reported by Dr. H. T. Hanks.—Man, forty years of age. Phthisis in last stage. Injections of fluid blood were ordered, and he took them faithfully, being convinced that they were beneficial and did him excellent service. He continued them for four weeks, when in the extremely hot weather in July he died.

Cases XV. to XXXVIII. inclusive are reported by Dr. Andrew H. Smith, and occurred in patients at St. Luke's Hospital.

CASE XV.—Wm. N. Phthisis, third stage. Took four ounces of blood by enema once a day for thirty days. Negative result. Patient was failing when the treatment was begun, and continued to sink.

CASE XVI.—Jacob Graf. Entered hospital November 12th, died January 27th. Pleuritic effusion into right pleura, with compression and carnification of lung. Extensive tubercular disease of upper lobe of left lung, with cavities.

November 27th.-Began injections; four ounces once daily. Weight, 141 pounds.

December 13th .- Weight, 144 pounds.

January 4th .- Weight, 146 pounds.

Autopsy made by Dr. Satterthwaite, who found that death was caused by sudden congestion of the only useful portion of lung remaining, viz., left lower lobe. An interesting fact in relation to the behavior of fluids injected into the rectum was revealed at the autopsy. The patient had taken his injection as usual between 8 and 9 o'clock in the evening, and death took place at about 5 o'clock the next morning. The amount of the injection (four ounces) was not sufficient to half fill the rectum alone, yet the large intestine from the anus to near the hepatic flexure was found evenly lined with thickened blood. It is true the patient was in the horizontal position, still we should not have expected to find the injection extending much above the point at which it was left by the syringe.

CASE XVII.—Garretson. Phthisis, second stage. On December 15th began use of blood, and in two weeks gained three pounds.

CASE XVIII.—Edward Retigan. Phthisis, third stage; excessive night-sweats, for which no medicine had been given. Ordered five ounces of blood by enema daily at bedtime. The sweating was greatly diminished the first night, and within a week it had nearly ceased, and there was a decided gain in strength. Gained a pound and a half in fourteen days.

CASE XIX.—Daniel R. Similar in every respect to Case XVIII., except that no cavities were present. The sweating was less during the night following the first injection, and practically ceased in the course of five or six days.

CASE XX.—Edward O'C. Phthisis, second stage. Took seven ounces once a day for ninety days. Effect uncertain, as patient was improving when the treatment was begun. Gained flesh very rapidly at first; then, on the recurrence of hæmorrhage, fell back. After the hæmorrhage, inereased the injections to ten ounces. Gained flesh again very rapidly, and left hospital at the end of two weeks much improved.

CASE XXI.—Andrew G. Phthisis in third stage. Had been in hospital seven weeks, and was steadily losing ground. Four ounces twice a day relieved a long-standing constipation and improved the appetite astonishingly. In two weeks there was a gain in weight of six pounds, and in the three weeks following a gain of three pounds.

CASE XXII.—John McN. Phthisis, second stage. Took four ounces once a day for twenty-three days. Some colic was produced. Gained six pounds, but was improving before. Lost three pounds in four weeks after the treatment was stopped.

CASE XXIII.—Hansen. Phthisis, third stage. Took four ounces once a day for ninety days. Felt stronger, but continued slowly to lose weight. Stopped treatment for three days; grew rapidly weaker. Improved again when the treatment was resumed.

CASE XXIV.—Clarence M. Phthisis, second stage. Four ounces once a day for seventy-five days. Produced constipation; general effect negative.

CASE XXV.—Peter R. Fibrous phthisis, second stage. Five ounces once a day for thirty-three days. Constipation. Improved somewhat, although the breathing was very much restricted and the conditions very unfavorable.

CASE XXVI.-William A. Phthisis, third stage. Five ounces once a day for twenty-five days. Result negative.

CASE XXVII.—Garretson. Phthisis, second stage. Five ounces once a day for twenty days. Gained three pounds in two weeks. Strength improved.

CASE XXVIII.—Thomas G. Phthisis, third stage. Four ounces once a day for forty days. Result negative. Was failing, and has continued to lose ground.

CASE XXIX.—Charles B. Fibrous phthisis, third stage. Four ounces once a day for fifty days. Result negative. Gradually lost the power of retaining even a small enema. Continued to fail.

CASE XXX.—John D. Phthisis, third stage. Three ounces once a day. At the end of twenty-two days, blood not retained. After omitting it for a short time, during which patient failed rapidly, it was resumed and well retained, and he improved decidedly.

CASE XXXI.—Ellen C. Phthisis, third stage. Three ounces once a day for thirty-five days. Gained strength; night-sweats checked; coughed less.

CASE XXXII.—Stanislaus, female. Phthisis, thirdstage. Three ounces once a day for twenty days. Result negative. Continued to fail, and died.

CASE XXXIII.-Anne H. Similar to last, and with like result.

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CASE XXXIV.—Elizabeth W. Phthisis, second stage. Four ounces once a day for thirty-eight days. From a condition of rapid decline, characterized by high fever, complete loss of appetite, emaciation, night-sweats, racking cough, and complete prostration of strength, she regained flesh, color, and strength; her appetite improved, and her cough was lessened. Night-sweats ceased, and she left the hospital very much better—in fact, looking like another woman.

CASE XXXV.—Joanna J. Phthisis, third stage, with phthisical laryngitis. Three ounces twice a day for twenty-one days. Caused extreme constipation. Strength sustained, although very little food was taken on account of dysphagia. Failed rapidly after treatment was discontinued.

CASE XXXVI.--Bridgman. Phthisis, second stage. Four ounces once a day for fifteen days. Produced some diarrhœa. Patient held his own while using the blood, but lost weight and strength after its use was given up.

CASE XXXVII.—Mrs. G., private patient of Dr. Smith. Phthisis, first stage. Five ounces twice a day for forty days. Gained strength and appetite, and coughed much less. Eight months after was still improving.

CASE XXXVIII.—Anna T., hospital patient of Dr. Smith. Phthisis, third stage. Three ounces twice a day for ten days. Revived from an almost moribund condition, and lived ten days.

CASE XXXIX. Anæmia, reported by Dr. Bayles.—Female, aged twenty-two; teacher. Well-marked case of dyspeptic anæmia, of two years' duration. Nourished entirely by the rectum for three weeks, a portion of the time with defibrinated blood, of which she took five ounces three times a day. At the end of three weeks medicine was dispensed with, and food given by the mouth. In two months dismissed cured.

CASE XL. Anæmia.—Martha T., aged nineteen, hospital patient of Dr. Smith. Extreme anæmia of many years' standing. Says that from her earliest recollection she has been remarkable for her extreme pallor. Has received a great deal of treatment, and has been in hospital for long periods. Probably has congenital arterial hypoplasia. Took four ounces twice a day for sixty-five days. Not much benefited. Troublesome constipation produced. Did not improve under iron and small doses of bichloride of mercury.

CASE XLI .- Mary S. Pronounced anæmia, following intermittent

fever. Confined to bed. Took five ounces twice a day, with no other treatment. Discharged cured in thirty-four days.

CASE XLII.—Sarah D. Anæmia of typical character. Great pallor. Took five ounces twice a day for forty days. No other treatment. Some constipation produced. Recovered.

CASE XLIII.—John K. Extreme anæmia, following long-continued and severe intermittent fever. Anæmic bruit and venous hum present with unusual distinctness. Took five ounces twice a day for twenty days, and recovered with no other treatment. Murmurs disappeared in ten days.

CASE XLIV.—James H. Anæmia, well marked. Has been taking four ounces once a day for thirty days, and is steadily improving. Some constipation at first.

CASE XLV.-Mrs. C. Anæmia. Four ounces once a day. Improved rapidly in color and strength.

CASE XLVI.—Miss P., private patient. Anæmia. Bruit present. Five ounces twice a day. Bowels, formerly constipated, became regular. Bruit disappeared at the end of a month.

CASE XLVII .- Rev. Dr. S., private patient. Extreme anæmia consequent upon the general disturbance of health resulting from contraction of the right chest from a pleurisy two years before. The lung was compressed by effusion and bound down by organized lymph, which prevented reëxpansion when the fluid was absorbed. Right cavity of chest nearly obliterated. Breathing very much embarrassed, respirations numbering from 60 to 70 per minute. Face pale; lips bloodless; legs swollen. Constant dry cough, complete loss of appetite, and greatly disturbed sleep. No medicine was given, but a teacupful of blood was directed to be taken every night by the rectum. In two weeks the swelling of the legs disappeared, the breathing became less hurried, and the appetite and sleep improved. After about six weeks, during which patient gained greatly in strength, the treatment was discontinued; but all the former symptoms began to make their appearance again, and after five days he was glad to return to the enemata. The first night after resuming them there was refreshing sleep, and the following morning a regular meal was taken and retained for the first time in three days. Patient is still improving.

In this case nine ounces were taken each night for some time through misunderstanding. During this time the dejections were extremely fetid. The quantity was afterward divided, and half of it given in the morning. After this there was no further annoyance.

CASE XLVIII. Dyspepsia, reported by Dr. Douglas.—Mrs. M. E., thirty-six years old, a native of Ireland and a chronic dyspeptic, was taken January 2d with vomiting, which grew severe and continued sixty-five hours. She was then delivered of a still-born seven-months' child. In extreme exhaustion, her stomach rejecting even a teaspoonful of milk and time-water. I ordered two-ounce enemata of beef's blood warmed to 100°, which gave such relief that she slept for an hour. Complaining of severe gastralgia next day, I had ten grains chloral hydrat. added to each injection, given four times daily, while the pain lasted, the quantity of blood being increased gradually to four ounces. These injections continue to the present time (January 13th), though vomiting ceased on the 8th, and she takes with a relish small draughts of milk, soup, etc.

CASE XLIX. Dyspepsia, reported by Dr. Smith.—John G., patient at St. Luke's Hospital, had for some months vomited all solid food. Epigastric pain and tenderness. No blood vomited. Very much emaciated. Confined to bed. Took six, and subsequently seven, ounces twice a day, very little food being taken by the mouth. Gained six pounds in six weeks, and the irritability of the stomach was greatly lessened. Left his bed, and was finally detailed to bring the daily supply of blood from the slaughter-house to the hospital. Before resorting to the use of the enemata, milk diet, electricity, blisters, and a great variety of drugs were tried, with but slight and temporary benefit.

CASE L. Dyspepsia, transcribed from the records of St. Luke's Hospital.—Patient, William T., four years and a half old, was admitted October 21, 1878. For five or six months had been running down without assignable cause. Examination shows extreme emaciation, anæmia, enlarged liver, veins of abdomen injected, and stomach distended. Ordered syr. ferri iodid., gtt. iij, t. i. d. Ex. malt,  $\frac{7}{2}$  j, t. i. d.

November 1st .- Improving in general appearance.

January 1st.—For some days patient has been vomiting nearly everything taken into stomach. Ordered milk diet.

23d.—Not materially improving, though vomits less frequently. Patient weighs twenty-three pounds without clothes. Ordered enemata of defibrinated beef-blood,  $\overline{3}$  ij, b. i. d.

31st.-Weighs twenty-four pounds and a half. Looking much better; running about the ward.

February 8th.—Weighs twenty-five pounds and a half. Lips red; cheeks filled out and rosy; abdomen less distended; and in every way patient looks a healthy child.

CASE LI. Dyspepsia.—James K., private patient of Dr. Smith. Case had continued for about eight months, the patient vomiting after nearly every meal, if even the smallest amount of solid food was taken. He became very much emaciated, and was supposed by his friends to have consumption. The only treatment ordered was an injection twice a day of a teacupful of blood and the application of a belladonna plaster over the stomach. The vomiting ceased in the course of three or four days, and at the end of seventeen days it was found that he had gained eleven pounds and a half.

CASE LH. Dyspepsia, reported by Dr. Bayles.—Patient aged sixtytwo. So intolerant was the stomach of food that gastric ulcer or morbid growth about the pylorus was suspected. For two months nothing was taken by the mouth except a little weak claret and water, toast-water, or tea with milk, the nutrition being kept up by enemata of beef's blood. At the end of this time he had gained in weight, and was so far recovered that he could resume his accustomed place at the table.

CASE LIII. Dyspeptic asthma.—Mr. R., private patient of Dr. Smith. Of very spare habit and feeble frame, yet a man of great energy and devoted to his business. Had been for years subject to frequent and severe attacks of dyspeptic asthma, which produced great prostration. The most varied treatment, prescribed by different physicians, gave but little relief. In the early part of last summer he began the use of enemata of blood, increasing the quantity until he took from six to eight ounces twice a day. He continued this during the hot weather, remaining in town and devoting himself actively to business. He gained six to eight pounds, and had complete immunity from asthma during the whole time. The injections, however, produced annoying constipation, and he finally gave up their use. Since then he has rather lost ground, and he is suffering somewhat again from his old attacks.

CASE LIV. Diarrhœa in a phthisical patient, reported by Dr. Bayles. —The attempt was made to use rectal alimentation, different articles being employed for the purpose. None of them answered well, and blood acted the least favorably of all, the diarrhœa being specially aggravated by it.

CASE LV. Nervous exhaustion .- Miss S., private patient of Dr. Smith. Constitution broken six years ago by prolonged ulceration of rectum and fistula in ano. Frequent attacks of dysentery since. Last winter sick for three months with a low nervous fever, which left her in a state of extreme debility. Pain and tenderness in epigastrium, no appetite, insomnia, giddiness, palpitation, tinnitus, spectral illusions. Five ounces twice daily produced an immediate improvement. Epigastric pain and tenderness disappeared within a few days, and sleep and appetite returned. The giddiness and palpitation soon disappeared, but the tinnitus and the spectral illusions continued for several weeks. In a month from the beginning of the treatment she had recovered so much strength that she could row for a short time each day. No medicine taken. She returned to town in October much improved in flesh, and better than she had been for years. She was then subjected to a great drain upon her strength in opening a new house, and in the midst of it had one of her attacks of dysentery. This was promptly checked, but it left her with many of her former symptoms. She resorted again to the enemata with immediate and marked benefit; and in three or four weeks, although surrounded by very unfavorable influences, she regained what she had lost.

CASE LVI. Exhaustion from pleurisy and sub-acute pneumonia.— Mrs. B., private patient of Dr. Smith, aged sixty-eight. Strength very much reduced; no appetite. Four ounces twice a day caused rapid improvement in both particulars. When the treatment was omitted even for a single day, she felt that her strength was less. In this case the injections caused a tendency to looseness of the bowels.

CASE LVII. Exhaustion from pelvic cellulitis.--Maria F., patient at St. Luke's. Hectic; night-sweats; diarrhœa. Took three ounces twice a day. At first checked diarrhœa, subsequently produced colic and loose passages. General result negative.

CASES LVIII. and LIX. Neuralgia, reported by Dr. Bayles.—Mother and daughter both suffered from paroxysms of neuralgia lasting about ten days, and recurring on an average as often as once a month. Disease hereditary. Twenty ounces were given daily in divided portions for ten days, and then after an intermission for a second ten days, nothing but a little milk with lime-water being taken into the stomach. In the six weeks which included these two periods of ten days the mother gained six pounds and the daughter two pounds. The attacks of neuralgia were greatly mitigated in severity and duration.

CASE LX. Reported by Dr. Smith.—Miss S. Ovarian neuralgia, without anæmia. Four ounces were given twice a day, but it produced great nervous excitement and insomnia. It was omitted for a few days, and when resumed the same symptoms recurred, and its use was abandoned.

CASE LXI. Gastric ulcer .- Pauline S., aged eighteen, patient at St. Luke's Hospital. Vomited everything taken. For two weeks had been nourished entirely by enemata of blood and brandy, but was failing, and when first seen was semi-conscious and apparently moribund. Found that the blood and brandy were given mixed (three ounces blood and one ounce brandy every three hours), thus probably coagulating the albumen of the blood and preventing absorption. Ordered the blood to be given separately, and an occasional teaspoonful of brandy and milk to be given by the mouth. Next day patient fully conscious; pulse, which had been barely perceptible, had become fairly strong, the glazed corneæ bright, and the dry tongue moist. There had been no vomiting. From this time recovery progressed rapidly. Milk and brandy in very small quantities were given by the mouth, and gradually other articles were added, until in two weeks the patient was upon full diet, when the rectal alimentation, which had been proportionately diminished, was entirely withdrawn. In five weeks she was discharged cured.

CASE LXII. Hæmorrhage from ulcer of the stomach.—Bishop G., patient of Dr. A. S. Purdy. There was very profuse vomiting of blood at short intervals up to the moment of death, the case terminating in about thirty hours. Enemata of blood were employed, and may have prolonged life somewhat, but no means of support could avail in the presence of such profuse and persistent hæmorrhage.

CASE LXIII. Exhaustion from uterine hæmorrhage, reported by Dr. Hanks.—On July 29, 1878, I was called to see Mrs. B., aged thirty-three years, a native of the United States, on account of a profuse and longcontinued menstrual flow. I found her extremely weak and apparently nearly exsanguinated, with a feeble pulse of 110; temperature, 99°; respiration, 24; a constant flow of thin red blood from vagina. This had continued for one week. Her last menstrual flow was also of long duration.

The uterus was found retroverted in the second degree. The displace-

ment was corrected, and warm salt-water injections *per vaginam* were ordered. On the following day the flow still continued, and the patient was hardly able to raise her head from the pillow without fainting.

Pulse still rapid and feeble; temperature normal. A liberal allowance of brandy was ordered, and aromatic sulphuric acid and morphine in small doses.

August 1st.—Same condition; pulse, 120; temperature, 101°; vomits all food taken. Ordered four to six ounces of beef's blood *per rectum* three times per day.

August 2d.—Pulse and temperature the same. Patient looks and feels better. Injections have caused no pain or uneasiness. Same treatment to be continued.

August 5th .- Patient improving. Same treatment.

August 13th.—Has continued the injections of blood until to-day. Has taken some food via naturali during the week. Has improved steadily during the use of the injections.

SUMMARY .- The report covers 63 cases.

Thirty-eight were of phthisis. Of these, in 8 the treatment was not well borne; 10 were not noticeably benefited; 20 received benefit, some of them slight, others very decided.

One case of diarrhœa in phthisical patient made worse.

Nine cases were of anæmia. Of these, 1 was not benefited; 8 were greatly improved or cured.

Five cases were of dyspepsia. All benefited, some of them remarkably. Several apparently cured.

One case of dyspeptic asthma entirely relieved while the treatment was continued.

Four cases of exhaustion from various causes, all benefited.

Three cases of neuralgia: 1 not benefited, 2 decidedly improved.

Two cases of gastric ulcer: 1 not benefited, death taking place from hæmorrhage; 1 rescued when apparently moribund.

From the facts before them, the Committee feel warranted in the following conclusions:

1. That defibrinated blood is admirably adapted for use for rectal alimentation.

2. That in doses of two to six ounces it is usually retained without any inconvenience, and is frequently so completely absorbed that very little trace of it can be discovered in the dejections.

3. That, administered in this way once or twice a day, it produces in about one third of the cases for the first few days more or less constipation of the bowels.

4. That in a small proportion of cases the constipation persists, and even becomes more decided the longer the enemata are continued. 5. That in a very small percentage of cases irritability of the bowels attends its protracted use.

6. That it is a valuable aid to the stomach whenever the latter is inadequate to a complete nutrition of the system.

7. That its use is indicated in all cases not involving the large intestine, and requiring a tonic influence which can not readily be obtained by remedies employed in the usual way.

8. That in favorable cases it is capable of giving an impulse to nutrition which is rarely if ever obtained from the employment of other remedies.

9. That its use is wholly unattended by danger.

#### REPORT ON THE USE OF ETHER WITH COD-LIVER OIL.

THE preliminary report on this subject made by this Committee to the Society last April covered 31 cases, and furnished strong evidence to support the claims of Dr. Foster, who first suggested the combination. We are now able to add 63 cases. Of these, 3 are reported by Dr. Bayles, 50 by Dr. Kinnicutt, and 10 by myself. A few of these will be given in brief.

CASE I. Reported by Dr. Bayles.—Male, aged forty. Exhaustion following abscess in perinæum. Cod-liver oil with hypophosphites of lime and soda was first tried. This was tolerated by the stomach, but produced cerebral fullness, and plain oil was substituted. This disagreed with the stomach. Twenty minims of ether added to each dose of 3 iij acted fairly well for two weeks, after which nausea and frequent vomiting came on. Subsequently  $\frac{7}{3}$  ss. of the pure oil was given, and fifteen minutes afterward 3j of the spirit of sulph. ether in carbonic-acid water. This was continued two months with the happiest effect, the oil given this way being digested without difficulty.

CASE II. Dr. Bayles.—Female, aged twenty-two. Exhaustion following abortion with putrid fœtus. Vomiting of food. Cod-liver oil was given, 3 ij t. i. d., and twenty minutes afterward  $\mathfrak{M}$  xx. of spt. ether. comp. On several occasions the ether was purposely omitted as a test, and the oil always produced gastric irritation. The experiment of giving the oil and the ether in the same dose was also tried, and resulted in less complete digestion of the oil than when the ether was given afterward, eructations, headache, etc., being produced.

CASE III. Dr. Bayles.—Male, aged thirty-five. Chronic diarrhœa from imperfect stomach digestion. Attempts at rectal alimentation failed. Codliver oil followed by ether was given, and was well borne, and formed the principal nourishment for eight days, when the appetite returned and food was taken with some relish. After from twenty to thirty days the oil was discontinued altogether, a complete cure having been effected. Repeated experiments were made by omitting the ether or giving it in emulsion with the oil, but none of these attempts were successful. Dr. Kinnicutt has administered ether with cod-liver oil in fifty cases, and has not met with a single instance in which the combination was not well borne. He has repeatedly prescribed the pure oil, and found that it disagreed, while the same patients afterward took the etherized oil with perfect ease. He quotes two such cases:

"January 26, 1878.—New York Hospital, out-patient department. K. B., aged eight months. Delicate anæmic child, with scrofulous diathesis. Ordered ol. morrh. 3 ss. t. i. d.

"July 1st.—Patient is unable to take the oil, invariably vomiting immediately after its ingestion. Ordered spts. etheris ¶ jss. in each dose of oil.

"July 13th.—The first dose of the etherized oil was retained, and it has been given with the same success since. In connection with the above case I would mention that I have notes of a number of similar cases among very young children.

"February 1, 1879.—M. G., aged twenty-five. Patient is an anæmic woman, with scrofulous diathesis. Under treatment since August, 1878. Ol. morrh. was prescribed, but patient was unable to take it on account of nausea and vomiting produced. She has been able to take the etherized preparation with perfect ease, and its use has been attended with improved nutrition. On one occasion, through a mistake of the druggist, one half of the usual quantity of ether was used in the preparation of the prescription. The *first* dose was vomited, and subsequent ones, until the mistake was rectified. The *first* dose of the corrected preparation was retained."

In my own case I have not prescribed the etherized oil, unless I found by trial that the plain oil could not be borne. I have met with six such cases, in which the addition of the ether was completely successful.

In four other cases, in which the patients could not take the oil either plain or in emulsion, or with brandy, the difficulty was not overcome by prescribing ether with it.

The Committee are of the opinion that the evidence before them warrants the following conclusions:

1. That the addition of ether to cod-liver oil in about the proportion of fifteen minims to each half ounce (or an equivalent amount of the compound spirit of ether) will succeed in the vast majority of cases in enabling the patient to take the oil, even though it previously disagreed.

2. That in some cases in which the oil still disagrees after the addition of the ether, the difficulty may be overcome by giving the ether separately from fifteen minutes to half an hour after the oil is taken.

No facts have been laid before the Committee having a bearing upon the question as to whether the etherized oil is superior to the plain oil in its ultimate effect upon nutrition, supposing them to be equally well tolerated by the stomach.

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