Pathological Report.

(By the courtesy of Dr. W. Howel Evans of the University of Liverpool.)

Macroscopically.—The liver was the typical yellow-ochre colour, with small reddish cell areas. It weighed about 19 ounces, and resembled in consistency a fluid jelly contained in a thin capsule. The gall-bladder was normal, and contained a small quantity of bile. There were no gall-stones present.

Microscopically.—Sections showed a moderate degree of multilobular cirrhosis, which probably antedated the acute yellow atrophy. The great majority of the liver cells were completely necrotic; some areas showed fatty degeneration. There seemed to be practically no attempt at compensatory regeneration. The picture is that of almost complete necrosis, with the addition of the areas of fibrous tissue and the round-celled infiltration due to the multilobular cirrhosis.

CASE II.

Reported by W. A. M.

Mrs. R., aged 55. Previous history—nothing pertinent. On April 28th, 1927, the urine had been tested, and gave specific gravity 1010, reaction acid, no sugar or albumin. In May, 1923, she had sustained a fracture of the skull, with wound (compound fissured fracture). In the second week of December, 1927, she was ordered, for neuritic pains, atophan (7½ grains) three times a day for three days a week, and to take each morning a teaspoonful of sodium bicarbonate. According to her daughter's evidence at the inquest she never exceeded the dose, and ceased taking the drug about the end of January, 1928—five weeks before death. This was about a fortnight before the onset of jaundice.

On February 15th I found her jaundiced to a slight degree. She was put to bed, but became deeply jaundiced, and evidently was going downhill. There was some tenderness over the gall-bladder, and, owing to the uncertainty of the diagnosis, exploration was determined upon. A small cirrhotic-looking liver was found, but no dilatation of the ducts. She died within twenty-four hours on March 5th, 1928.

The urine had contained bile pigment. The faeces could not be got free from urine, and the examination of them gave equivocal results as regards the evidence of bile. *Post mortem*, a biphasic van den Bergh reaction was obtained on the blood. No obvious cause of the atrophy was found, and it was thought better to report the suspicion to the coroner, who held an inquest.

The extreme quantity she could have taken is 540 grains spread over eight weeks, and four days' interval followed each 67½ grains. At first she told her family that the drug was doing her good; later she had expressed a doubt.

Post-mortem Report (E. C. L.).

Macroscopically.—The liver was considerably smaller than normal, weighing about 26 ounces; it was soft in consistency, its capsule showing typical shrinkage. The cut surface was of the typical yellow-ochre colour and studded with small reddish areas. The gall-bladder and bile ducts were normal and patent. No gall-stones or cholecystitis were present. The pancreas was normal in size and consistency. The spleen was not enlarged, but rather softer in consistency than normal. The kidneys were normal in size, but somewhat soft in consistency.

Microscopically.—Liver sections showed marked necrosis of the hepatic tissue, interspersed with round-celled infiltration, without the development of any multilobular cirrhotic changes, the picture being typical of acute yellow atrophy. Sections of the spleen and pancreas showed no abnormal findings. Sections of the kidneys showed marked parenchymatous degeneration of the tubular epithelium, and suggest a considerable amount of subacute nephritis.

Conclusions.

1. Poisoning by phenylcinchoninic acid and its congeners is a condition which the medical practitioner should always bear in mind.

2. There may be no premonitory symptoms, although urticaria, albuminuria, gastro-intestinal disturbances, and transient jaundice have been noted. Acute yellow atrophy ushers in the fatal termination.

3. For the present we would suggest that the presence of albuminuria or any evidence of nephritis should be considered as a contraindication for the administration of this drug.

4. The slightest sign of intolerance, such as nausea or loss of appetite, should be an indication for the immediate stoppage of administration of the drug.

5. The estimation of a van den Bergh reaction and icteric index of the patient's serum will probably give the earliest evidence of any pathological effect upon the liver cells, and present the opportunity for omitting treatment, long before any evidence of clinical jaundice could be observed.

6. Even if administered in the correct intermittent manner phenylcinchoninic acid or any of its congeners may be a dangerous drug. The authors feel that its indiscriminate use is very undesirable.

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[1] Schroeder, K.: *Ugeskrift for Laeger*, September 7th, 1922, p. 1141. References 2 to 7 are to the *British Medical Journal* of the dates given. [2] Worster-Drought, C.: January 27th, 1923, p. 148. [3] Langdon-Brown, W.: July 3rd, 1926, p. 37. [4] Evans, G.: July 10th, 1926, p. 93. [5] Glover, L. G.: July 17th, 1926, p. 136. [6] Willcox, Sir W. H.: August 7th, 1926, p. 273. [7] Wells, C. J. L.: October 23rd, 1926, p. 759. [8] Graham, G.: Presidential address, Section of Therapeutics and Pharmacology, Royal Society of Medicine, October, 1926. See also *British Medical Journal*, October 16th, 1926, p. 688.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

GAS GANGRENE OF SIGMOID.

I VENTURE to think that the following case, resulting in death from toxaemia in twelve hours, must be fortunately of rare occurrence.

On February 27th, at 3.15 a.m., I was called to see a man, aged 51, with violent abdominal pain which had lasted about an hour. He had vomited twice, and had passed a little blood and mucus. The pain had begun in the right iliac fossa, and had become generalized. He was a healthy man, and looked less than his age. There was no history of any abdominal symptoms whatsoever, and of no illness except "rheumatism."

Condition on Examination.—He appeared to be very ill and was in obvious agony, though not collapsed. The temperature was 98° F., and the pulse 88. The tongue was furred, brown, and very dry. The abdomen moved on respiration; it was somewhat distended and extremely resistant, though there was no board-like rigidity. The tenderness was marked and universal. No assistance was given by a rectal examination.

Diagnosis.—This was difficult to fit in with any of the ordinary causes of an "acute abdomen" in a man of his age. It was decided to operate on the assumption that volvulus was present, and a quarter of a grain of morphine was given.

At 4.30 a.m. the pulse was 100 and the temperature was 100° F. There had been no more vomiting, but the pain was quite unrelieved.

Operation.—After a second injection of a quarter of a grain of morphine and 1/100 grain of atropine, the right rectus was displaced outwards below the umbilicus; free peritoneal fluid welled up on opening the cavity. The appendix was found to be normal, the gall-bladder was blue and apparently normal; the intestines were not unduly distended, and there was nothing to suggest an obstruction; there was no sign of duodenal or stomach contents, nor was any ulcer felt. There was no question of acute pancreatitis or of diverticulitis. The only abnormality I could find was in the lowest part of the sigmoid, where it passed into the rectum; this was rather swollen, oedematous, and stained by a few purple petechiae near the mesenteric border. I was frankly puzzled, since I hardly thought a lesion so low down, and so unfamiliar as a cause of an abdominal catastrophe, could account for the acute onset and extreme illness of the patient. His general condition was good and the pulse had hardly risen (120). Mr. Arthur Cooke also carefully examined the abdominal cavity and found everything normal except the sigmoid. He had never seen such a case, but hazarded an opinion of a *B. welchii* infection of the affected loop, and 10 c.cm. of gas gangrene serum was injected immediately. At the end of the operation the pulse rate was 100, and a rectal saline was given. At 9 a.m. the pulse was still only 100. The tongue was more moist, and his colour was better, but the agony was unrelieved. Morphine (1/4 grain) was given. At 12 noon the pulse had risen to 140; he was flushed and there was cyanosis. The breathing was rapid. The patient was evidently still in terrible pain; he had not vomited since the operation. The abdomen was somewhat distended. Another quarter of a grain of morphine was given. At 2.15 p.m. the patient had become cyanosed and grey; he was completely comatose and pulseless, and died a quarter of an hour later.

Post-mortem Findings.—Permission for a limited necropsy was obtained, and at 9 p.m., with Dr. H. E. Nourse, I explored the abdomen through the original incision extended upwards. The *post-mortem* changes generally were very marked for the short time since death, and the odour on reopening the distended suture line was appalling. There was much sero-sanguineous peritoneal exudate, and the changes in the sigmoid had progressed to complete gangrene for about six inches, extending below the reflection of the peritoneum. There was no diverticulum. Minute bubbles of gas were observed below the peritoneal coat. Elsewhere the abdomen was quite normal.

I sent some of the fluid and five inches of the gut to the Bonnett Laboratory; the following is a summary of Dr. C. H. Whittle's pathological report.

1. *Exudate.*—Large numbers of Gram-positive capsulated bacilli were found in films. Culture: (*a*) aerobic—streptococci and *Staphylococcus albus*; (*b*) anaerobic—a bacillus of the *B. welchii group*.

2. *Sections of Gut.*—There was intense congestion and gangrene of the whole wall and bleeding into the lumen. The wall was

packed with *B. welchii*. The blood vessels of the mesocolon of the affected part were thrombosed; the vessels showed no sign of any previous disease.

3. *Animal Inoculation*.—A guinea-pig inoculated intramuscularly and subcutaneously with broth cultures died within forty-eight hours from gas gangrene. The organism was highly pathogenic.

It is difficult to assign a cause for a primary thrombosis, because Mr. Cooke and I are both satisfied that there could have been no volvulus in the relatively immobile loop.

If, alternatively, it is assumed that the thrombosis was secondary to the intensity of the inflammatory process (which must have started in the mucous membrane), the reason for the selection of the sigmoid for attack in a perfectly healthy subject has still to be explained.

The case was as tragic as its origin was obscure.

Cambridge. R. SALISBURY WOODS, M.D., F.R.C.S.

TREATMENT OF VARICOSE VEINS BY INJECTIONS.

IN the course of a series of treatments for varicose veins of the lower extremities my attention was drawn to the fact that the size of the veins varied considerably with the act of respiration, and it occurred to me to make use of this when injecting them. If a patient, either standing or lying down, is asked to take a deep breath, the veins will be seen to dilate on inspiration and to contract on expiration. This phenomenon is best seen in markedly dilated veins on the inner side of the thigh, especially over the great saphenous vein; it occurs in a lesser or almost imperceptible degree in the veins of the leg. It exists, however, in all cases.

Two requirements must be fulfilled to obtain satisfactory results in treating varicose veins by sclerosing injections: (1) the injected fluid must not be too diluted by the amount of blood in the vein, and (2) the fluid must come in as direct contact with the endothelium of the vein as possible. For these reasons the injections must be given with the patient lying in certain positions which tend to empty the veins as much as possible of their blood; taking advantage of the changes due to respiration will, I believe, also help in this.

The site for injection having been purified, the patient should be asked to take a very deep breath; while he is doing so the needle is inserted. He is then asked to breathe out very slowly, and the solution is injected while he is doing this. In this way the needle will be inserted when the vein is distended, and the injection will be given when it is almost empty. In making use of respiration and posture I have found that a smaller quantity of the sclerosing solution will bring about the same end-results, since there is less blood to dilute the fluid, and also the walls of the vein are in closer contact with the injection. After all injections the patient should lie down for ten minutes, and during that time breathe slowly and lightly. It will be noticed that when a vein has been successfully treated its size is no longer affected by respiration.

I have ventured to record these details since I have been unable to find any reference regarding the effects of respiration in connexion with varicose veins, and think it may be of interest and worthy of further study.

London, S.W. T. HENRY TREVES BARBER, M.D.

LARYNGEAL MYXOEDEMA.

THE fact that the diagnosis, and therefore the correct treatment, was missed by general practitioner, physician, and laryngologist alike in three successive cases of laryngeal myxoedema, suggests that a note may be useful.

The first case was that of a surgeon, aged 65. He had always had good health, although there was, on rare occasions, slight albuminuria. He complained that when he tried to sing all he could get instead of a clear note was a grunt. There was some swelling about the eyes; his voice was hoarse; there was pronounced oedema, red, glazy, of the mucosa of the back and sides of the larynx and of the ventricular bands. On a grain of thyroid extract twice daily he quickly got rid of the oedema of his face and larynx, regained his voice and vigour, and has continued an active professional life for the last four years. On inquiry it was found that his sister died of myxoedema.

The next case was that of a Salvation Army officer, aged 60, who found open-air speaking a difficulty. The symptoms in this case were not pronounced as in the previous one; the vocal cords were sound, but there was some beefiness of the rest of the larynx, thinning of the eyebrows, and clear waxy skin with scattered telangiectases. The whole aspect suggested hypothyroidism, and the diagnosis was made instantly on inspection by my assistant. Thyroid extract cleared up the case.

The third case is the most interesting. A lady of 70 came to me in July complaining of laryngitis, for which she had been sent home from the coast, although she had been there only two days and the "laryngitis" had lasted six months; the voice, indeed, was hoarse, the mucosa above the glottis, and especially on the back of the larynx, was beefy red. Moreover, she had marked exophthalmos, and gave a history of severe Graves's disease when she was 30, which had disappeared by the time she was 40. Viewed across the room, however, her face looked thick; and, when asked about it, she used the suggestive expression, "When I wash my face it fills my hands." Under a fortnight's treatment with thyroid extract her symptoms disappeared—except the exophthalmos. This was a case of hyperthyroidism passing during forty years through fibrosis into the "hypo" stage, but leaving the exophthalmos for witness of the hyper one.

The cause of error was simple and the same in all—distraction from the general appearance and symptoms by the patient's complaint of the laryngeal condition. There was some excuse in each case: in the first because the patient was a man, and so familiar to his colleagues that they were thrown off their guard; in the second because the symptoms were slight; in the third because of the exophthalmos. If myxoedema is not suggested to the observer's mind by the patient's appearance and voice the moment the latter enters the consulting room the diagnosis is apt to be missed. The laryngeal picture, however, is unmistakable. The back of the larynx looks like a beefy red shield and throws itself at one's eye. Certainly the pale anaemic appearance of some textbooks was not exemplified in these cases. A "laryngitis" that has lasted for months and leaves the true cords practically unchanged in appearance is presumably myxoedema.

JAMES ADAM, M.D., F.R.F.P.S.GLAS.,
Surgeon for Diseases of Ear, Nose, and Throat, Glasgow Parish Council.

Reports of Societies.

THE ETIOLOGY OF ALCOHOLISM.

THE Section of Psychiatry of the Royal Society of Medicine joined with the British Psychological Society on March 29th for a discussion on the etiology of alcoholism. Dr. R. LANGDON-DOWN, president of the Section, was in the chair.

Dr. BERNARD HART, opening, said that to the question, "Why do certain people take alcohol to excess?" many answers had been returned. Leaving aside such facile explanations as that alcoholism was a vice or a disease—explanations which added nothing to knowledge—theories had been put forward emphasizing the part played by heredity, by the mechanism of habit, and by the response to stresses and strains in the mental organism. Psychological theories of recent origin tended to dominate the field, and the other factors were now in some danger of being unduly minimized. In the modern psychological approach to the subject it was held that the forces which drove men to take alcohol to excess were, in some measure at least, identical with those which impelled men to take it at all, and it would seem that the causation of alcoholism must be sought for by inquiry into the effects of alcohol. Stockert had divided such effects into psychomotor stimulation, coupled with euphoric affective tone, and, secondly, a "dulling" process extending to paralysis. The speaker thought that these groups might usefully be employed as a basis for further amplification. Possibly the euphoria was only to be explained in chemical terms, or it might be directly produced only in part, and be in some measure the secondary result of the removal of inhibitions and the consequent release of impulses. With regard to the "dulling" process, in general it might be said that psycho-analysts accepted the view that alcohol was taken in order to achieve a psychological aim, which consisted partly in the assuaging of conflict and partly in the attainment of freedom of expression for repressed forces. The euphoric

Medical News.

THE KING visited the Woolwich War Memorial Hospital on March 27th, when he was received by Mr. E. Kemp, L.C.C., the chairman of the hospital; Lord Dawson, consulting physician; Sir Berkeley Moynihan, consulting surgeon; and Mr. Cecil Rowntree, chairman of the Medical Committee. His Majesty made a tour of the wards and special departments, and inspected the new stainless steel and chromium-plated furniture in the operating theatres, made by Messrs. Arnolds to Mr. Rowntree's designs. His Majesty expressed his satisfaction at hearing that all the equipment was of British manufacture, and congratulated the chairman on the beauty and efficiency of the hospital. Before leaving the King planted a cedar tree in the grounds.

TO celebrate the centenary of the Royal Free Hospital, and in aid of the centenary appeal for the new extensions, the medical staff and students, with some other friends of the hospital, are organizing a ball to take place on May 1st, from 9.30 p.m. to 2 a.m., at the British Medical Association House, Tavistock Square. There will be dancing in the Great Hall to Newman's Band, with short cabaret turns by well-known artistes at intervals, while ample space for bridge players will be provided in the Hastings Hall. Tickets, to include supper, are one guinea each, and may be had from any member of the committee, from the Royal Free Hospital, and from the Honorary Secretary, May Day Ball, 24, Mecklenburgh Square, W.C.1.

A MEETING of the West Kent Medico-Chirurgical Society will be held on Friday, April 13th, at 8.45 p.m., at the Miller General Hospital, Greenwich, S.E.10, when Mr. R. Ogier Ward will give an address on some difficulties in the diagnosis and treatment of urinary diseases.

UNDER the auspices of the Fellowship of Medicine a special course in infants' diseases for medical officers of welfare centres and others will be held at the Infants Hospital, Westminster, from May 7th to 19th. In addition to lectures and demonstrations visits will be paid to the Model Pasteurizing Plant, Willesden; the Nursery Training School, Hampstead; the V.D. Centre, Thavies Inn; the Home for Blind Babies, Chorley Wood; and the Infants Hospital Convalescent Home, Burnham Beeches. Details may be obtained from the secretary of the Fellowship, 1, Wimpole Street, W.1. Similar courses at the Infants Hospital will be held in August and December.

A POST-GRADUATE course on diseases of the nervous system will be held at the National Hospital, Queen Square, from May 7th to June 29th, consisting of clinical lectures and demonstrations each week-day afternoon, except Wednesday and Saturday, work in the out-patient department each week-day, except Saturday, and a series of seven pathological lectures and demonstrations. A course of eight lectures on the anatomy and physiology of the nervous system will be arranged if there are sufficient applicants. There will also be a course of twelve clinical demonstrations on Tuesday and Friday afternoons, chiefly on methods of examination of the nervous system. A limited number of students can be enrolled as ward clerks. Full details regarding the course and these appointments may be obtained from the secretary, Medical School, National Hospital, Queen Square, W.C.1.

THE seventh International Congress of Photography, which is to be held in London from July 9th to 14th, under the auspices of the Royal Photographic Society, is the first to take place in this country. All branches of photography and its applications, including radiography, photomicrography, and methods employed in chemistry and biology, will be discussed in the various sections and illustrated in a series of exhibitions during the congress. Offers of radiographic prints, photomicrographs, and photographs of biological interest should be sent as soon as possible to the honorary secretary to the Organizing Committee, the Science Museum, South Kensington, S.W.7.

THE Council of the Royal Society of Arts announces that the next award of the Swiney Prize, which on this occasion will be for the best published work on medical jurisprudence, will be made in January, 1929. Dr. Swiney, the donor of the prize fund, who died in 1844, left £5,000 to the society to provide, on every fifth anniversary of his death, a prize consisting of a cup, value £100, and money to the same amount, the awards being made alternately for medical and general jurisprudence. Any person desiring to submit a work or to commend a work for consideration should do so in writing to the secretary of the society, John Street, Adelphi, W.C.2, not later than November 30th; the award is made jointly by the Society of Arts and the Royal College of Physicians. The last two awards for works on medical jurisprudence, in 1909 and 1919, were made to Dr. Charles Mercier for his books, *Criminal Responsibility* and *Crime and Criminals* respectively. One of the earliest prize-winners, in 1859, was Dr. Alfred Swayne Taylor, whose *Medical Jurisprudence* has lately appeared in its eighth edition, more recent awards going to Dr. C. M. Tidy in 1889 and Dr. J. Dixon Mann in 1899.

AS announced in our advertisement pages applications for the Dickinson Travelling Research Scholarship in Medicine and the Dickinson Surgery Scholarship must be made by May 1st to Mr. Frank G. Hazell, secretary to the Trustees, Manchester Royal Infirmary, from whom further information can be obtained. The former is of the value of £300, tenable for one year, and candidates must have graduated at the University of Manchester, with distinction in medicine and surgery, in any of their academic years immediately preceding the award of such scholarship. The surgery scholarship is open to students who shall have received at the University of Manchester and the Royal Infirmary instruction in pathology, medicine, and surgery necessary for obtaining the degrees of M.B., Ch.B.Manch.

THE Royal Westminster Ophthalmic Hospital will move to the new building in Broad Street, High Holborn, W.C.2, on April 10th.

THE *British Guiana Medical Annual for 1925* has been recently issued at the cost of 7s. It contains the transactions of the British Guiana Branch of the British Medical Association for the years 1922–24, four original articles, and two clinical notes. A supplement deals with leprosy in British Guiana, including the related statistics and legislation, and also a note on treatment. The public health and medical statistics of the colony, usually published in this Annual, have been postponed to the 1926 issue, which is in course of preparation.

THE February issue of the *Kenya and East African Medical Journal* contains an account of the annual meeting of the Kenya Branch of the British Medical Association, and a review of the medical history of the colony during 1927. Attention is drawn to the improvement of railway communications, and to the closer co-operation of the public medical and health services in the various territories in East Africa under British rule. Other articles in this issue deal with the serological diagnosis of *B. pestis*, the treatment of ulcers with Stockholm tar, and inoculation of the monkey as a means of diagnosis of small-pox. The series of simple notes on tropical diseases is continued, with a practical account of the treatment of plague.

THE third congress of the International Society for Logopaedics and Phoniatrics will be held at Vienna from July 12th to 14th. Further information can be obtained from Professor E. Fröschels, Ferstelgasse 6, Wien IX.

THE eighth International Congress of Dermatology and Syphilology will be held at Copenhagen from August 5th to 8th, 1930. Further information may be obtained from the general secretary, Dr. S. Lomholt, Raadhusplads 45, Copenhagen.

A COURSE in oto-rhino-laryngology will be held at Strasbourg, under the direction of Professor Georges Canuyt, from July 2nd to 14th.

THE *Journal of the Egyptian Medical Association* has during the last ten years been printed solely in the Arabic language. Commencing with the issue of January, 1928, translations, or summaries, of the articles appear in English, French, German, or Italian. The first number published under the new conditions includes articles in English on the biochemical race-index of the Egyptians; bilharziasis of the conjunctiva, illustrated by coloured plates; and the determination of the solubility of digitoxin.

THE *Bruxelles-Médical* has recently published a special issue devoted to the annual congress known as the Journées Médicales de Bruxelles, held last June. The issue contains abstracts of the principal communications, with portraits of their authors, and an illustrated account of the social functions.

A NATIONAL fund is being created in Sweden for presentation to King Gustaf V as a gift on his seventieth birthday in June this year. The King intends to expend the fund in promoting cancer research. A special institute may be established in Stockholm.

THE following appointments have recently been made in foreign faculties of medicine: Dr. Hermann Straub of Greifswald, professor of internal medicine at Greifswald; Dr. A. Kohlrausch of Greifswald, professor of physiology at Tübingen in succession to the late Professor Trendelenburg; and Dr. Belak, professor of public health at Debreczin.

CHAIRS of therapeutic hydrology and climatology have been founded at the faculties of medicine of Paris, Lyons, and Montpellier, with Drs. Villaret, Piéry, and Giraud respectively as their first occupants.