

## " THE LEECH."

29

On the 17th (10 days after admission) the herpes round the eyes and nose had almost disappeared and twitchings were not pronounced, but the right arm and leg were still paralysed. He was still unconscious and incontinent, and, as he was unable to retain rectal feeds, nasal feeding was commenced.

**DIAGNOSIS AND TREATMENT.**—The localising signs determined the diagnosis and the treatment.

**OPERATION.**—He was trephined, on the 19th, over the left parietal region, and approximately 2 square inches of bone were removed. When the dura was incised the brain bulged through. A clot of blood was seen and the brain was found to be lacerated. The clot was removed.

**PROGRESS.**—On the 21st the patient was able to take fluids himself, looked intelligent, and followed moving objects with his eyes, but it was not until the 26th that he made his first attempt at speaking.

On April the 1st (12 days after the operation) he moved his right leg and on April 2nd his right arm. He was only able to say two words, "Aye" and "Ja."

On April 9th he was able to walk (with assistance), his appetite was enormous and from then until his discharge from Hospital he was showing daily improvement. It was noticed that he seemed to be learning his language all over again.

**COMMENT.**—The interesting points of the case are:—

1. The patient was unconscious for 14 days, during which time he was fed artificially.
2. No attempt at decompression was made until localising signs became definite.
3. Recovery of function appeared in the order:—Leg, arm, speech; that is, the more highly specialised functions showed slower recovery.

F. C. GRAY, M.B., Ch.B. (Wit.).

H.S., Non-European Hospital,  
Johannesburg.

## A CASE OF PERNICIOUS ANÆMIA.

(By kind permission of Dr. R. L. GIRDWOOD.)

**HISTORY.**—J. S., a married man, aged 68 years, recently a store-keeper, and born in Russia, was admitted to Ward 14 on the 29.8.28, under the care of Dr. Girdwood, complaining of "Weakness, yellowness of whole body, loss of weight, and shortness of breath."

In 1923, patient suddenly became "jaundiced" and very weak. Was admitted to Hospital, whence, after two months' treatment, he was discharged as "Improved." He remained fairly well till 1927, when the condition recurred with similar signs and symptoms. Was again treated in Hospital, where he improved considerably. In March of this year, patient developed the present attack. He gradually became weaker until he could barely walk, while the tinge of yellowness over his whole body, which had persisted since 1923, became very pronounced. Shortness of breath, which is now well marked, has run a course parallel to his weakness in its gradually increasing severity. On occasion, has slight attacks of palpitation, but he has not noticed any swelling of legs nor puffiness round the eyelids. Has no tingling nor numbness of extremities. Has lost 20 lbs. in the course of a few months, his weight now being 80 lbs. (Height, 5 ft. 6 in.)

**HABITS.**—Nothing abnormal to be noted.

**PAST HISTORY.**—Blackwater fever in Russia about 25 years ago. Otherwise quite healthy until 1923.

**FAMILY HISTORY.**—Nothing bearing on the case.

**EXAMINATION.**—On admission Temp. 98, Pulse 108, Tachycardia constant.

**GENERAL APPEARANCE.**—Lemon yellow, waxy looking skin; much wasting; skin inelastic and muscles weak and flabby; limbs much shrunken in girth and femur easily palpable. General weakness extreme; hands droop when held out; unable to get out of bed unassisted.

**CONJUNCTIVÆ.**—Pale and appear anæmic.

**MOUTH AND PHARYNX.**—Marked pallor; no inflammation, no ulceration.

**TEETH.**—All extracted.

**TONGUE.**—Dry and fissured, pale.

**ABDOMEN.**—Moves freely with respiration; spleen greatly enlarged and extends beyond mid-line of abdomen and two inches below umbilicus; it is of hard consistence with a sharp, firm border, notched, and moves with respiration. Liver slightly enlarged, inferiorly. Kidneys not palpable.

**ALIMENTARY SYSTEM.**—Achlorhydria; organic acids found. Bile drainage resulted in mixed growth of slightly haemolytic *B. Coli*, *Streptococci*, and *Staphylococci*. Persistent gastric deformity shown on X-ray.

**CARDIO-VASCULAR SYSTEM.**—Apex beat in 5th interspace, 4" from mid line. The impulse is weak and localised. A faint softly blowing systolic murmur heard at apex, not conducted, and a similar murmur at the base. In the neck a "bruit de Diable" can be heard. Pulse of low tension, regular in rate and rhythm; arteries thickened and tortuous. B.P., 104/50.

**PULMONARY SYSTEM.**—Nothing abnormal detected.

**URINARY SYSTEM.**—No abnormal constituents in urine.

**C.N.S.**—Intelligence fairly good; memory slightly impaired; no loss of sensation; no areas of hyperaesthesia; reflexes normal.

**HÆMOPOIETIC SYSTEM.**—

	3-7 28	16-7 28	24-7 28	8-8-28	April, 1927	Aug., 1927
Haemoglobin ... ..	below 20%	26%	26%	28%	38%	62%
Colour Index ... ..	—	1.3	1.15	—	1.1	.8
R. B. C's ... ..	1,310,000	1,180,000	1,350,000	1,840,000	1,970,000	4,670,000
Leucocytes ... ..	2,800	3,400	3,800	6,200	4,200	3,400
Polymorphonuclears	49%	68%	53%	59%	84%	54%
Eosinophiles ... ..	—	—	2%	—	—	4%
Lymphocytes ... ..	50%	31%	44%	38%	14%	42%
Large mononuclears	—	—	1%	1%	—	—
Mast cells ... ..	1%	1%	—	2%	—	—

Anisocytosis, Poikilocytosis, Polychromasia, Punctate basophilia, and Normoblasts were present in all specimens. Megaloblasts were found only twice. In spite of treatment little change in blood picture has taken place during the last two months.

**LOCOMOTOR SYSTEM.**—No swelling of joints; no pain nor tenderness over long bones.

NOTES ON PREVIOUS ATTACKS.—In 1923 signs and symptoms differed in several respects. The patient had occasional attacks of diarrhoea, and pain was present over the splenic area. The liver was enlarged but the spleen was not palpable. Blood picture similar to above. Deformity at the cardiac end of the stomach seen on X-ray. One month later the Hb. had increased to 50% and the colour index was 0.8 with a red cell count of 4,500,000.

In 1927, patient also had diarrhoea. He was definitely jaundiced and the v. d. Bergh reaction gave a delayed direct result. Liver was slightly enlarged and the spleen showed its present characteristics. blood condition. The blood picture is characteristic of Pernicious Swelling of ankles and feet. For blood picture, vide supra. On X-ray the stomach was normal in contour but a gastric analysis showed complete absence of HCl. and the presence of organic acids. Bile drainage resulted in a mixed growth of B.Coli, Streptococci and Staph. albus, all haemolytic. The gall bladder did not concentrate Graham's dye. Wassermann negative.

At the end of a month the patient had improved considerably with a markedly increased red cell count (over 4 million), an increased percentage of Hb. and a C.I. below 1. Spleen was just palpable.

DIAGNOSIS.—The history, the signs and symptoms point to a Anæmia, the only anomalous feature being the greatly enlarged spleen.

DIFFERENTIAL DIAGNOSIS.—APLASTIC ANÆMIA.—Age, course and blood picture differ.

SECONDARY ANÆMIA.—Etiological factor absent; the gastric deformity is probably extra-gastric due to enlargement of spleen.

LEUKÆMIA.—No lymphatic nor myeloid preponderance of cells; leucopenia present.

SPLENIC ANÆMIA.—Age and blood picture are against this.

ANCYLOSTOMIASIS.—Absence of specific ova; no eosinophilia.

CARCINOMA.—Long history. No hæmatemesis nor melaena. Recent X-rays inconclusive, in view of findings in 1923 and 1927. No lactic acid.

ACHOLURIC JAUNDICE.—Fragility of red cells not increased (.35%).

SPRUE.—Has never lived in country where sprue endemic. Stools not large nor pultaceous. No eosinophilia.

TREATMENT.—This patient was put on 2 tubes of Liver Extract (B.W.) daily (=1 lb. liver). Ac. hydrochlor. dil. drachms ii t.d.s. to aid digestion. As he did not improve at all he was given a tonic consisting of Three Syrups, drachm i t.d.s., and later Liq. Arsenicalis, m. iii, was added. Four blood transfusions were performed, the patient being given 250 ccs, 40 ccs, 75 ccs, and 235 ccs respectively, with no improvement. In the last transfusion a case of Polycythaemia rubra was used as the donor.

Bile drainage and lavage is being performed, and at the same time the patient is being given a solution of Gentian Violet and Acriflavine, each 1:1000.

COMMENT.—This case presents interesting and unusual features, the tremendous size of the spleen being perhaps the most unusual. Both Muir (1) and Osler (2) state that the spleen in Pernicious Anæmia is only slightly enlarged. The loss of weight associated with a persistent gastric deformity would make one suspicious of a malignant condition of the stomach, but the fact that a similar loss of weight occurred last year, when the X-ray findings were negative, seems to discount this. Although diarrhoea is a common accompaniment of P.A., yet it need not necessarily occur, and it is possible that in view of the past history of diarrhoea that the patient has had this during the last few months as well, but that it has escaped his memory.

With regard to the etiological factor, Gulland (3) is of the opinion that there are "many conditions, known and unknown, which can produce a megaloblastic anæmia. We cannot hope to discover the cause of P.A. because there are many causes. P.A. is a symptom complex rather than a disease." Investigations at the General Hospital and elsewhere (3) incriminate a chronic toxæmia due to the presence of organisms (*B. Coli*, *B. Welchii*, and *Streptococci*) in the duodenum, in addition to the already known parasites such as *Ancylostoma* and *Bothriocephalus*.

In the treatment of P.A., "liver" now has first place. This case demonstrates the great value which the "Extract" would have been, had it been prepared last year. Instead of giving up the "liver" treatment soon after leaving Hospital, as he did, the patient would probably have kept up his treatment by using the "Extract," and there is a strong possibility that he would not have had the present relapse. Whereas he found the large amounts of "liver" he had to take nauseating, he has no difficulty with the "Extract." One tube of "Extract" has the value of  $\frac{1}{2}$  lb. of liver; its bulk is small, it is pleasant to take and can be given in milk or broth. Unfortunately no success has followed its use here, because the patient has neglected himself to such an extent that the specific action of liver has failed. The blood forming function of his marrow has probably failed, hence the absence of reaction.

It is interesting to note the dictum of Minot and Murphy (4), who say that a case which does not improve on liver is not a true Pernicious Anæmia. In addition to liver, they advise a diet rich in fruit and green vegetables. Excess fat must be avoided as well as sweet foods and those rich in starch.

It is of paramount importance to treat all foci of infection and to aid digestion with hydrochloric acid. Transfusion of blood is of great assistance in giving a patient a start on the road to improvement in cases where there is a severe anæmia.

B. EPSTEIN,  
Medical School.

#### REFERENCES.

- (1) Muir, "Text Book of Pathology."
- (2) Osler, "Principles and Practice of Medicine."
- (3) Gulland, "Pernicious Anæmia," *B.M.J.*, 15/10/27.
- (4) Minot and Murphy, "Treatment of Pernicious Anæmia with a Diet Rich in Liver," *B.M.J.*, 15/10/27.

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#### NOTICE.

The Editorial Committee would welcome contributions to this Journal. As the nature of the articles required is so varied, there should be no difficulty in forwarding some matter of interest to readers.

The Committee are particularly desirous of receiving notes on interesting and instructive cases, as also accounts of the problems met with by those graduates practising in country districts.

This is the first publication of the Journal, and as such does not pretend to be perfect; the Committee would appreciate constructive criticism and suggestions for the improvement of the Journal.