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A CASE OF PROGRESSIVE PERNICIOUS ANÆMIA.

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THE patient was a girl aged eleven, of well-built frame; she is said by her relatives to have been hitherto remarkably healthy, with a bright, florid complexion. The dwelling-house had a much better exposure to sunlight than is usually found among the poorer classes in large cities. There had been no lack of good food. The other members of the family bore all the appearances of health. About the middle of March the parents noticed that the girl's appetite began to fail. She gradually lost strength and color. On May 1st, when the patient was first seen, there was extreme pallor. The prolabia and fauces were almost cream-colored. There was no emaciation. Patient was extremely weak, and fainted on the slightest exertion, perhaps a dozen or twenty times during the day. Complained of shifting pains, particularly in calves of legs. Appetite capricious, bowels regular, epistaxis frequent, slight hæmorrhages from gums, a profuse bloody expectoration. There was a slight cough and an extremely disagreeable odor from the mouth. Slight puffiness at angles of jaws.

The physical examination of chest gave no abnormal signs, with the exception of a loud murmur with the first sound of the heart, loudest at left base, quite faint at apex; the murmur was propagated into the carotids. There was no enlargement of the heart nor accentuation of the second pulmonic sound. Neither spleen nor glands were enlarged. Pulse 120, respiration 36, temperature $101\frac{1}{4}^{\circ}$.

The blood was examined with great care by Dr. Cutler and myself, the *Compte-globule* of Malassez being used. The result was as follows: number of red globules to the cubic millimetre of blood, 714,145; number of white globules, 2911.¹

Dr. Cutler was kind enough to report in regard to the condition of the corpuscles in the specimens examined by him as follows: "The red globules were paler than normal. The bi-concave contour was not preserved. There was not much variation in size between the indi-

¹ The number of red globules in health in an adult male is 4,500,000 to the cubic millimetre. The number of the white varies greatly; 5000 may be considered the average in health.

vidual globules. All were rather smaller than usual. There was not much detritus." A similar condition was found in the specimens examined by me. The white globules seemed abnormally granular, and were irregular in shape.

Examination of the urine showed nothing abnormal. No impairment of vision. Eyes not examined with ophthalmoscope.

Patient's condition remained the same for a fortnight. Bloody expectoration continued with little change, perhaps three ounces being expectorated during the twenty-four hours.

After May 14th, the following notes were taken:—

May 14th. Pulse 108, temperature $100\frac{1}{2}^{\circ}$. Two subcutaneous ecchymotic spots over tibia, as large as tip of finger.

May 16th. Puffiness at angle of jaw has disappeared; no œdema nor ascites.

May 17th. Much weaker, temperature 100° , refused all nourishment.

May 18th. Complained of severe pain in ear, and in abdomen; temperature 101° , pulse 122.

May 19th. Temperature $99\frac{1}{4}^{\circ}$. Refuses her food. Complains of severe abdominal pains. Restless during night, drowsy during day. Patient rarely speaks, but is conscious.

May 22d. Patient much excited during a violent thunder-storm. Had severe attacks of pain referred to different parts of body. There was a copious discharge of blood from mouth, said to have been a pint; Patient craves for different sorts of food, but rejects everything after the first mouthful, or vomits.

May 23d. Moves right arm and leg less easily than left; slight œdema at angles of jaws.

May 24th. Temperature 101° , pulse 120; right arm flexed and firmly contracted, right leg motionless. No loss of sensation, however. The "black and blue" spots on leg much larger. No emaciation. A slightly dusky tinge to face, some convulsive movements, no change in pupils. Patient unconscious.

May 25th. Died. No autopsy.

The treatment throughout, besides as stimulating diet as patient would bear, consisted in the administration of iron in some form. *Tr. ferri chloridi*, *ferrum redactum*, *syr. ferri iodidi*, were successively given and were all taken well by patient until the last few days. Fowler's solution was substituted for the iron two days before death, but was not, however, thoroughly tried. Quinine in one-grain doses was given. The only effect which could be fairly attributed to the iron was a blackening of the stools, as no improvement in the patient's condition occurred.

In the diagnosis of this case, phthisis is naturally suggested by the hæmoptysis and the fever. As, however, beside the spitting of blood

there was epistaxis and bleeding from the gums, indicating a hæmorrhagic state, as no abnormal physical signs were to be found in the lungs throughout the sickness, and as there was no emaciation or night sweats, a diagnosis of phthisis is not tenable. Much of the blood seemed to be hawked up, as if coming from the fauces or posterior nares.

The absence of enlargement of the spleen or glands would not exclude leucocythæmia. The course of the disease was, however, much more rapid than leucocythæmia ever is. Fever does not occur constantly in leucocythæmia, and, finally, examination of the blood proved a diminution of the white globules not to be seen in leucocythæmia.¹

Progressive pernicious anæmia, a term first used by Gusserow and Biermer, and since generally adopted, is applied to a condition of "extreme anæmia terminating fatally in spite of the most nourishing treatment, for which no cause can be found (capable of explaining the malignity) either in the surroundings or physical condition of the patient."²

The disease is not a new one. Marshall Hall³ described in 1839 a case of "fatal chlorosis," and Addison's⁴ description of "idiopathic anæmia" makes it evident that the disease is the same as that described by Gusserow, Pepper, and others. Trousseau's case of "febris alba virginum,"⁵ is probably identical.

An Italian, Corrazza, reported⁶ a case of oligæmia, probably a case of pernicious anæmia. Gusserow, Biermer, Immermann, Zenker, King, Pepper, Phillips, and others have reported cases within the last few years. A case reported in the *JOURNAL* for January 14, 1875, by Dr. Chadwick, would seem to be a case of pernicious anæmia.

The affection is more common in women than in men; two of Pepper's cases were, however, adult males. It is more frequent after puberty, from the eighteenth to the fifty-seventh years; Quincke, however, reports a case at eleven years. Pregnancy is undoubtedly a predisposing condition.⁷ The beginning of the disease is always gradual; characteristic of its course are absence of emaciation, extreme weakness, slight œdema or dropsy, which, however, according to Pepper, may be transitory. In a majority of cases hæmorrhages occur, either from the nose, gums, vagina, or uterus.

Capillary hæmorrhages in the retina always occur, according to Quincke, and capillary extravasations in the skin are common. Extremely loud anæmic murmurs are usual; the heart is sometimes slightly

¹ Uhle and Wagner.

² Ziemssen's *Cyclopædia*, Immermann, *Progressive Pernicious Anæmia*.

³ Hall, *Practice of Medicine*, American Edition, 1839, page 369.

⁴ *Syd. Soc. Ed. of Addison's works*, page 212.

⁵ *Clin. Med.*, iii. 70.

⁶ Schmidt's *Jahrbuch*, 1872, Bd. 155, s. 333.

⁷ Gusserow.

enlarged, but no valvular lesions occur. The urine is generally normal; albumen has, however, been observed in a few cases. An irregular fever is frequent. A temperature as high as 104° has been recorded,¹ there being no assignable cause. Usually, however, the temperature does not rise above 102° , and it may fall slightly below normal. (One of Quincke's cases.)

The prognosis is necessarily grave. Two recoveries are reported by De Cérenville.² Quincke reports two recoveries; one of these, however, died six months later with similar symptoms, and the diagnosis in the other case would appear doubtful from the report.

In regard to the pathology, a summary of recent observations can be found in the *JOURNAL*, October 22, 1874 (Dr. Fitz, Report on Pathology and Pathological Anatomy). Some later observers regard the fatty degeneration of the heart mentioned by Gusserow as a result and not a cause of the patient's condition.

Pepper considered the disease a medullary form of the pseudo-leukæmia (Hodgkin's disease, Trousseau's "adénie"), and found in one case change in the medulla of the tibia. This, however, does not seem to be constant, and is not reported in Pepper's second case.

Little can be said in regard to treatment. Transfusion has been tried in several cases, but without any marked benefit. Iron is not always well borne, and seems to be of little use. Cod-liver oil, iodine, arsenic, and phosphorus are all recommended, but from the reported cases little can be expected from their employment.

LITERATURE. — Pepper, *American Journal of the Medical Sciences*, October, 1875; Immermann, *Ziemssen's Handbuch*, xiii. 615; Quincke, *Volkmann's Samml. klinische Vorträge*, No. 100; King, *British Medical Journal*, 1871; Gusserow, *Archiv für Gynaekologie*, ii., 1871, 218; Biermer, *Correspondenzblatt für Schweizer Aerzte*, ii., 1872, No. 1; Zenker, *Deutsches Archiv für klinische Medizin*, iii., 1874, 348; Gfrörer, *Memorabilien*, xix. 3, page 116, 1874; Ponfick, *Berliner klinische Wochenschrift*, 1873, No. 1; Perl, *Virchow's Archiv*, Bd. 59; Perroud, *Lyon Médicale*, 1869; Cérenville, *Bulletin de la Société de la Suisse, Rom.*, Mai., 1875, page 138; Phillips, *Guy's Hospital Reports*, third series, xviii. 159, 1873.

CASE OF RUPTURE OF THE SYMPHYSIS PUBIS DURING LABOR.

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Mrs. B., patient of Dr. H. Cowles, of Saxonville, forty-two years of age, primipara, medium height, well formed, spare, weight one hundred and ten pounds, arrived at full term of pregnancy on the morning of February 4, 1876. She had enjoyed fair health during gestation, although suffering from œdema of hands, feet, and legs for the last few weeks.

¹ Pepper.

² I have been unable to find the reports of these cases.