Fatal Hematemesis from Gastric Arterio-Sclerosis.

A case, together with the literature of the subject, is recorded by Bitot and Mauriac (Gaz. des Hôp., 13th March 1913), in which death occurred from hsematemesis consequent upon arterio-sclerosis in the gastric arteries. The patient was thirty-six years old, and had suffered for six years from syphilis. He was very liable to alimentary and to bilious vomiting, with occasional presence of blood, and appeared to suffer from hyperchlorhydria with ulceration. Later he developed symptoms of tabes, loss of reflexes, Argyll-Robertson pupils, etc., and the vomiting increased so much as to suggest gastric crises. This persisted despite division of the posterior roots of the seventh, eighth, and ninth dorsal nerves, and the haemorrhages from the stomach became also more abundant. The patient finally died as the result of three copious vomitings of blood. Post mortem there was found to be considerable infiltration of the gastric mucous membrane with blood but no erosion whatever. Further, there was no sign of miliary aneurysm in the stomach wall—a frequent finding in such cases—but the vessels generally were greatly distended both outside and in the wall of the organ. As a result of this there had been numerous ruptures of the small arteries, with infiltration of the mucous membrane and detachment here and there of the epithelium. These small arteries on microscopic examination showed advanced arterio-sclerotic changes, but this might readily be overlooked, because the only other arteries which showed a similar condition were the coronaries. The writers call attention to this fact, which explains cases of apparently causeless hematemesis, because, as pointed out by Levinne, and as indeed is well known in the case of other organs, the stomach alone may have its vessels affected by arterio-sclerosis, which even the aorta and great vessels escape.

Disorders of the Two Lobes of the Pituitary Body.

An article is contributed by Cushing (Amer. Journ. Med. Sci., March 1913) which deals with the various syndromes of symptoms that appear, according to the manner in which the anterior lobe and the posterior lobe are respectively affected. The writer points out that all the affections of other ductless glands which we recognise are on the
side of insufficiency of the glandular activity, with the one exception of
the Graves-Basedow syndrome in the case of the thyroid. Nevertheless
he says there should be a characteristic and recognisable syndrome for a
primary derangement of each individual gland, whether on the side of
its secretory over-activity or of its secretory under-activity. Or it may
be that where one state has preceded the other and led to fixed changes
of the body we may have the two syndromes mixed. As regards the
hypophysis cerebri we have to deal with a dual organ, disease of either
of its lobes being capable of producing a very marked set of symptoms
which may be combined with symptoms referable to the other in
various ways, according to whether one or other lobe is stimulated or
destroyed. The conclusions of the writer are in part drawn from the
observation of clinical cases, in part the result of experiments conducted
by him along with Crowe, Homans, and Goetsch. They have found
that skeletal overgrowth depends upon a hyperplasia of the anterior
lobe of the gland, which secretes a hormone capable of stimulating
growth that is absorbed by the blood sinuses traversing this lobe.
The secretion of the posterior lobe, according to these observers, finds
its way into the cerebro-spinal fluid, and is required for metabolic pro-
cesses, being particularly related to the assimilation of carbohydrates.
Thus deficiency of the posterior lobe secretion leads to increased toler-
ance for sugars, with associated adiposity, subnormal temperature,
somnolence, polydipsia, and sometimes psychic disturbances of an
epileptiform nature. Excess of the posterior lobe secretion on the
other hand causes tissue waste, with loss of flesh, intolerance for
carbohydrates, with glycosuria, moist skin, etc. Secondary derange-
ments of other glands are very apt to occur, as, for example, of the
generative organs, which are activated in cases of hyperplasia, and
become atrophied or fail to develop when the posterior lobe is
hypoplastic. Three distinct syndromes are clinically recognisable:—
I. Acromegalic Syndrome, in which the anterior lobe is hyperplastic,
the posterior lobe at first undergoing a similar change and later becom-
ing defective. These cases show gigantism or acromegaly, with an active
metabolism and glycosuria at first, passing later to adiposity, subnormal
temperature, tolerance for sugars, and the rest.
II. Syndrome of Dystrophia Adiposogenitalis, or the syndrome of
Fröhlich, in which atrophy of both parts of the gland has taken place.
When this occurs early in life, as it usually does, the stature remains
small, the patient is adipose, and the genital dystrophy may cause absence
of the secondary characters of sex.
III. Syndrome of Overgrowth with Adiposity, which is due to an atrophy
of the posterior lobe, often caused by pressure of neighbouring tumours,
with a secondary stimulation of the anterior lobe. In this case accelera-
tion of growth, often with hypertrichosis, marked adiposis, with increased
sugar tolerance, are very marked symptoms. Illustrative cases are
recorded, and two typical cases of overgrowth with adiposity are shown by photograph.

**LYMPHOCYTOSIS OF INFECTION.**

Four cases are recorded by Cabot (*ibid.*), illustrating the fact that the usual polynuclear leucocytosis of infective conditions may at times be replaced by a lymphocytosis so pronounced as to suggest the presence of a lymphatic leukaemia. The septic causes in these four cases were respectively wound infection, boils, a "cold" with enlarged cervical glands, and a streptococcic sore throat. The count of white cells varied round about 20,000, 16,000, 9000, and 30,000, while the proportion of lymphocytes present among these was respectively 70, 82, 71, and 75 per cent., the polynuclears making up practically all the remainder of the white cells. In all the cases there was recovery from symptoms and return of the blood to normal in a few weeks or months. The writer discusses the differential diagnosis of these cases from tuberculosis and from leukaemia. In the case of the latter the degree of lymphocytosis is higher, 90 per cent. or thereabout, and there is no obvious source of infection to cause the enlargement of glands, while the disease becomes progressively worse instead of gradually disappearing, like the simple leucocytosis.

**FUNCTIONAL EXAMINATION OF THE KIDNEYS BY PHENOLSULPHONPHTHALEIN.**

It is recognised by every practitioner that the method of attempting to estimate the condition of the kidneys by means of the amount of albumin passed is quite fallacious, and that the examination for tube casts and the other methods in vogue are not much more satisfactory. Considerable attention has therefore been paid of late years to discovering some test which will indicate from the urine the secretory power of the kidneys. One of the latest of these is the phenolsulphonphthalein test of Rowntree and Geraghty. Erne (*Münch. med. Woch.*, No. 10, March 1913) and Fromme and Rubner (*Ibid.*, No. 11, March 1913) publish results of their experience with the test. It is simply carried out by injecting with a hypodermic syringe the contents of an ampoule of phenolsulphonphthalein solution (0.006 grm. of this substance in 1 c.c. of water) under the skin or into a vein. The patient should drink a large tumblerful of water twenty or thirty minutes before the injection, and his urine is collected and examined at intervals of one, two, and three hours after. The amount of phenolsulphonphthalein passed at the end of each period is estimated by means of a special colorimeter. Normal individuals, according to Rowntree and Geraghty, after hypodermic injection show the presence of the substance in the urine in 5 to 11 minutes, at the end of one hour have excreted 50 per cent. of the amount injected, and by the end of the second hour 60
to 85 per cent. of the total. Fromme and Rubner, having investigated 120 presumably normal persons, do not agree with these amounts and periods; for trustworthy results they require the observation period to be extended to three hours, and state that on the average healthy people excrete 70 per cent. of the phenolsulphonphthalein introduced into the system within three hours, although one must not regard the kidney function as abnormally low if only 60 per cent. be passed in this time. Erne, on the other hand, agrees with earlier observations that an amount of less than 45 per cent. in the first hour and of less than 70 per cent. in the first two hours indicates a pathological condition of the kidneys. His results in 48 persons whose urine contained albumin and casts gave figures round about 40 to 60 per cent. for the first two hours, being particularly low in cases diagnosed as chronic interstitial nephritis. He regards the test as one which is not only readily applied but very valuable, as giving information upon defects of kidney function not elucidated by the albumin test.

**Progressive Lenticular-nucleus Degeneration.**

Cases resembling the symptom-complex described recently by Lhermitte and by Wilson (Brain, 1912, pt. iv.), of which the chief features during life are giddiness and intellectual deterioration occurring in families, and passing on later to dementia, are recorded by Homen (Fortsch. d. Med., 13th March 1913). These cases are found after death to show a degeneration of the lenticular nucleus and a multilobular cirrhosis of the liver, as well as in some instances interstitial changes of other organs. In Homen's cases there were five members out of one family consisting of eleven brothers and sisters affected in the same way. Their troubles began with repeated attacks of giddiness, headaches, and loss of appetite during early adult life. Mental deterioration followed, and the patients succumbed to various intermittent diseases. The chief point which Homen makes in his paper is the presence of congenital syphilis as the cause, and he regards all the cases of this symptom-complex as due to delayed congenital syphilitic manifestations. It was impossible definitely to establish syphilis of the parents, but facts suggestive of this were an abortion early in their married life, death of four children in the first two weeks of life, and presence of widespread interstitial and vascular changes in the organs of three surviving to early adult life (19 to 26 years). Further, two were greatly benefited by an antisypilitic regimen, one who still survives being perfectly well, and another who developed the disease being so much benefited by a course of mercury inunctions (at the age of 19) that she insisted on going home. The last patient shortly after developed, and died of, pulmonary phthisis, and post mortem the internal organs showed the changes characteristic of the symptom-complex in question.

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