

lethargica occurs among individuals with lowered or depressed condition of the central nervous system.

None of the cases proved fatal, all making a gradual recovery without leaving any bodily signs of involvement of the central nervous system, except in one patient, No. 5, who in the course of the illness developed an increasing paresis of the left side of the body of an upper motor neurone type, which still remains.

Mentally, three of the patients, formerly noisy and turbulent, are now much quieter and more amenable, one shows increased apathy and languor, and the two remaining patients show no change. With regard to the epileptic seizures, it may be said that there has been practically no difference in the number of fits before and after the onset of encephalitis.

In this investigation I have had the valuable assistance of the Medical Officer of Health for Lancashire, the Deputy Medical Officer of Health for Lancashire, and the Medical Officer of Health for Preston. Later a representative of the Ministry of Health was invited to see the patients, and in each case confirmation of the diagnosis was given.

I am indebted to Dr. R. M. Clark, Medical Superintendent, for permission to publish these cases, and to Mr. A. H. Faun, Chief Laboratory Assistant, for his valuable assistance.

References.—Hall, *Epidemic Encephalitis*, 1924.—Gillespie, *Journ. Ment. Sci.*, January, 1924, lxx, p. 1.—McCowan, Harris and Mann, *Brit. Med. Journ.*, May 1, 1926, p. 779.—McNalty, *ibid.*, 1926, p. 1073.

*Cardiac Infarction.** By T. WISHART DAVIDSON, M.B., D.P.M.,
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CARDIAC infarction follows disease or occlusion of the coronary arteries. In 90% of cases it is due to atheroma with final occlusion by thrombosis; embolism accounts for the remainder. The records of the last one hundred *post-mortem* examinations on patients over forty-five years of age at the City Mental Hospital, Leicester, indicate that marked coronary sclerosis or atheroma with more or less occlusion occurred in 23 cases—11 males and 12 females. In 5 the occlusion was almost complete, with fibroid degeneration of the myocardium, whilst in 2 cases, those to be described, occlusion was complete and followed by infarction.

* A paper (with demonstration) read at a meeting of the Northern and Midland Division held at Nottingham, October 27, 1927.

The left coronary is the vessel more commonly occluded, particularly the anterior descending branch. Thayer (1) states that the coronary arteries are not strictly "end-arteries," and Gross (2) considers that collateral circulation increases as age advances.

CASE 1.—J. H—, male, æt. 55, shoe-hand, admitted in June, 1901, in a condition of acute excitement with hallucinations. He slowly demented, and became a useful worker, leading an active life. No history of syphilis. In August, 1925, heart was found to be enlarged and there was a soft mitral systolic murmur and occasional extra-systoles. Lungs were clear. On November 13, 1925, he was in bed for a few days with bronchitis and slight œdema of feet and legs; no albuminuria. He was soon up and about again, working away as usual. On December 26, 1925, he went out for the half-day, returned in the evening and complained of not feeling well. He went to bed, slept for an hour, and at 10 p.m. he got out of bed, went to the commode, collapsed, and died at 10.3 p.m.

Post-mortem.—Heart greatly hypertrophied, weight 28½ oz.; pericardium adherent over apex. The lower half of the left ventricle was ballooned out, the result of aneurysm formation; this dilatation was big enough to contain a golf ball. Anterior part of dilatation was fibrous and showed areas of thrombosis and recent hæmorrhage; remainder of the aneurysm was fibrous with calcareous deposit. Small patches of atheroma in ascending aorta and inside the mouth of the left coronary artery. Complete occlusion of anterior descending branch of left coronary artery for a distance of 2 cm. Myocardium brownish and soft.

Microscopically: Atheroma of coronary artery with organized thrombus; abundant fibrous tissue, calcareous deposit and scanty muscle-fibres in wall of aneurysm. Kidneys showed chronic interstitial nephritis.

There was no history of any illness or complaint by patient to indicate coronary occlusion, yet extensive infarction had occurred. The infarct had undergone softening and been replaced by fibrous tissue which had stretched, producing aneurysm of the heart. Extensive calcareous deposit had occurred later, and judging from this the patient must have carried on with a damaged heart for some considerable time, possibly years, until he presented signs of temporary heart failure in November, 1925, from which he apparently recovered, but which was followed by sudden death in December, 1925. Calcification of the infarct is a rare occurrence. Scholz (3) describes a case where there was a calcified cup at the apex. In Gibson's (4) collection of forty-three cases of cardiac infarction there is no example of calcification.

CASE 2.—E. M—, female, æt. 65. Insanity with epilepsy. Wassermann negative. On admission, heart-sounds soft and faintly heard; fatty degeneration diagnosed. On May 14, 1926, she complained of pain in chest, vomited, and breathing was embarrassed. Later temperature rose to 101° F.; pain in chest was acute, dyspnœa marked, extreme congestion. Fever continued for six days and the pain and dyspnœa slowly passed off. Patient apparently recovered and remained well until June 22, 1926, when she again complained of acute cardiac pain. There was fever, dyspnœa and facial congestion. On June 27, 1927, there was sudden syncope and death.

Post-mortem.—Heart enlarged; 17 oz. Over two pints of blood in pericardial sac; clot wrapped round heart. Pericardium adherent at apex and anterior surface of right and left ventricles. Round edges of pericardial adhesions blood oozed on pressure from heart cavity. Infarction in apex of left ventricle, with laminated thrombus formation in left ventricular chamber. Left coronary artery thrombosed for 2.5 cm.

Microscopically: (1) Infarct; muscle-fibres necrotic; bands of white fibrous tissue replace the dead muscle-fibres. (2) Coronary artery: "Signet-ring" atheroma with final occlusion by thrombosis; organization of thrombus taking place.

Commentary.

There were no marked signs of cardiac disease until the coronary occlusion occurred, when there was the sudden onset of acute pain over heart, dyspnœa, vomiting and fever lasting ten days. There was apparent recovery for a period of four weeks, during which patient was up and about. Meantime ischæmic necrosis had occurred with protective pericardial adhesions—protective for four weeks until stretching of the infarct occurred, with bleeding into the softened tissue through to the pericardial sac along the line of adhesions, resulting in hæmopericardium.

I am indebted to the Medical Superintendent, Dr. J. Francis Dixon, for permission to describe the above cases.

References.—(1) Thayer, W. S., *Intern. Clinics*, Philad., 1923, series 33, i, pp. 1-26.—(2) Gross, L., *Blood Supply of Heart*, New York, 1921.—(3) Scholz, T., *Arch. of Int. Med.*, 1924, p. 34.—(4) Gibson, A. G., *Lancet*, December 19, 1925.

Clinical Notes and Cases.

*Classical Mental Symptoms arising from Gross Bodily Disorders :
A Record of Five Cases.** By E. MILDRED CREAK, M.B.,
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THAT physical changes can give rise to mental symptoms has long been established; it is only necessary to recall the delirium of an acute pneumonia.

The following cases are reported, however, not so much to further the arguments in favour of physiogenesis, but as examples of fairly true-to-type clinical pictures of mental disease, in each case of which there was proved to exist an organic condition causing a widespread interference with normal function.

The mental symptoms, with possibly one exception, were similar to those we are accustomed to associate with psychoses where no such physical disturbance can be demonstrated. In the one case which recovered, the return to normal metabolism coincided, *pari passu*, with the disappearance of mental symptoms. In none did it appear likely that there was a coincident mental illness independent of the bodily illness.

* A paper read at a meeting of the Northern and Midland Division held at Nottingham, October 27, 1927.