

Summary

The literature concerning "spontaneous rupture of the liver" has been reviewed briefly, and particular attention has been drawn to the only case on record of spontaneous rupture complicating pregnancy. A further case is here described, and it is interesting that both have terminated successfully. The aetiology in the present case is very obscure, but it is suggested that the rupture may have been caused by a sudden hypertension. Spontaneous rupture of the liver should be borne in mind when seeking a cause for intraperitoneal haemorrhage of hidden origin.

I wish to extend my thanks to Mr. J. Gaymer Jones and Mr. D. Maxwell for their permission to publish this case.

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Medical Memoranda

Unusual Sequel of a Large Overdose of Insulin

The following case of prolonged and profound hypoglycaemic coma seems worth recording on account of the following features: (1) the huge dose of insulin; (2) the prolonged hypoglycaemia in spite of large doses of glucose; (3) the persistence of mental symptoms for a considerable time after the correction of the blood sugar, and the subsequent complete recovery of normal mental function.

CASE HISTORY

A man aged 25, a known diabetic for 13 years, was recently stabilized on 30 units of soluble insulin twice daily and a diet of 240 g. of carbohydrate. In the 1940 air raids he was badly concussioned, and has since been treated at the Maudsley Hospital for depression and "mental absences."

On the evening of July 7, 1945, he took his usual dose of insulin and his supper. He went out, returning at 10 p.m. rather quieter and more depressed than usual. An hour later he told his mother that he had taken a very large dose of insulin for no known reason. It was found that he had emptied a 10-c.cm. ampoule of 80 units per c.cm. soluble insulin which had been in use only 3 days, and it may be presumed, therefore, that he had taken a large part of the 560 units remaining in the ampoule. His mother said that he then took 3/4 lb. (340 g.) of sugar by mouth and returned to bed. Next day at 6 a.m. he could not be roused, and 1½ hours later he was admitted to King's College Hospital in hypoglycaemic coma. On examination he was found to be deeply comatose, flaccid, and sweating profusely. The pulse was slow and bounding, rate 52, and the blood pressure 130/80. All deep reflexes were absent. He was given 30 g. of glucose intravenously, and immediately became rigid, started shouting, and was difficult to control. A further 20 g. of intravenous glucose was given, and he became just able to drink, though irrational and noisy. An hour later the blood sugar was found to be 45 mg. per 100 c.cm., so more glucose was given by mouth, and the patient seemed quieter though still mentally confused. At noon he became drowsy again, and a further 20 g. of glucose was given intravenously and more by mouth. However, the latter was almost immediately vomited together with undigested food from supper the previous night. Half an hour afterwards his blood sugar was 34 mg. per 100 c.cm. in spite of the 70 g. of glucose so far given intravenously. It is interesting to note the continued fall in blood sugar in spite of the large and repeated doses of glucose.

The patient's general condition was still deteriorating, so 5% glucose-saline was given intravenously, and by 6 p.m., after 2 litres (=100 g. glucose), the blood sugar was 210 mg. per 100 c.cm. In spite of this raised blood sugar the patient remained confused and restless, and became violent and maniacal on the slightest stimulus. Morphine 1/4 gr. (16 mg.) and other sedatives, such as paraldehyde and hyoscine, were given four-hourly throughout the night without good effect. At 2 a.m. the intravenous glucose-saline was discontinued after 5 litres of fluid had been given, and after a stomach wash-out the patient was able to retain sugar drinks by mouth. His carbohydrate intake was then adjusted by mouth, and small doses of insulin were given to prevent ketosis. In spite of normal diabetic control, the patient's mental condition was completely unchanged. With 6 gr. (0.4 g.) of sodium gardenal he slept throughout the morning of July 9, and at noon his blood sugar was 190 mg. per 100 c.cm. He continued in a deep sleep until early afternoon, and then awoke very drowsy but mentally clear and orientated. He had complete amnesia for the whole incident since supper-time on July 7. He made an uneventful recovery and was seen again a fortnight later at the Maudsley Hospital, where little change in his mental state was reported.

I wish to thank Dr. R. D. Lawrence for his help in preparing this paper.

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Reviews

HISTORY OF MALARIA IN AMERICA

Malaria in the Upper Mississippi Valley, 1760-1900. By Erwin H. Ackerknecht. (Pp. 142. \$2.00.) Baltimore: The Johns Hopkins Press. 1945.

It has always been difficult to correlate the facts about malaria prevalence in America with the epidemiological features of this disease in the Old World. The reason is easy to appreciate, for malaria in the New World is not an age-long established disease in indigenous races as it is almost everywhere in the Old World, but one associated with the unique conditions of a continent peopled within a few hundred years by white pioneer settlers and their descendants. We know nothing about what the conditions were before this settling, even whether malaria existed at all, and, except for the efforts of a few writers to probe into the darkness, very little about malaria during the early years of American occupation. A recently published rather remarkable monograph entitled *Malaria in the Upper Mississippi Valley, 1769-1900*, by E. H. Ackerknecht of the Johns Hopkins Institute of the History of Medicine, is therefore of unusual interest, since it is a record of a very complete and exhaustive investigation of this whole subject. Not only does it give the story of malaria in America in a more complete form than has ever been done before, but as an epic of the history of earlier pioneer settling it makes fascinating reading.

After pointing out the great difficulties which surround any effort to obtain quantitative information imposed by the absence in those times of any adequate knowledge of malaria, its confusion with typhoid fever, and so on, the author takes up in detail the material he has collected regarding each one in turn of the five States comprising the area dealt with—viz., Illinois, Missouri, Iowa, Wisconsin, and Minnesota, these States having been chosen as best likely to yield the information desired. In each State there was a long interval (epidemiological latency, the author terms it) before malaria became prevalent—a strong argument for the view that malaria was not indigenous in the Western Hemisphere in pre-Columbian times. This period of healthiness was succeeded by such prevalence of the disease that, as the author says, malaria in the nineteenth century was the American disease. The pictures gathered from many sources give a grim insight into what the conditions along the rivers and in other early settlements must have been. With more settled conditions and a more stabilized population there followed everywhere, towards the end of the century, a great decline in the incidence, amounting in a large part of the area to virtual disappearance of malaria (and with it, we may interpolate, the curious high prevalence of blackwater fever in America).

It is not possible in a short notice to do justice to the wealth of detail and great interest attaching to what the author has written in regard to the causes which led to the decline of malaria; suffice it to say that he has closely and objectively investigated each possible factor, including a most instructive review of the part played by quinine—again not quite what might have been supposed and a most illuminating sidelight on the early history of this drug. The work concludes with a very full bibliography of the many sources of information consulted.

REGIONAL ANATOMY ILLUSTRATED

Illustrations of Regional Anatomy. By E. B. Jamieson, M.D. Complete volume. Seven sections. Sixth edition. (320 illustrations. 75s., plus 10d. postage.) Edinburgh: E. and S. Livingstone. 1946.

This work has now been published in a single complete volume, the sixth edition. It comprises seven formerly separate sections: I, Central nervous system; II, Head and neck; III, Abdomen; IV, Pelvis; V, Thorax; VI, Upper limb; VII, Lower limb. These sections can still be bought separately in their original form, each section being fitted into a loose-leaf cover in such a way that any plate can be removed for independent use and afterwards replaced, when desired, in the holder. The total number of plates, many of which have been distinctively coloured, is 320.

In Dr. Jamieson's preface to the sixth edition he gives an account of the origin of the first five sections of the series—