Spastic paralysis has been reported in severe classical pellagra. Thus Heatley-Spencer and Biggam, in the *British Encyclopaedia of Medical Practice*, state: "Sensory changes are common in the lower limbs and consist of various paraesthesiae and numbness. Objective sensation usually remains intact and there is no alteration of deep sensibility. Romberg's sign is rare. Pain in the dorsal or lumbar regions is common: peripheral neuritic pain may be severe and is often a late symptom. Stiffness and some loss of power, with painful cramps in the lower limbs, are common. The reflexes are variable, the knee-jerks being in some cases exaggerated, with a spastic rigidity, and in others lost. Mental changes are important and begin with mental dullness, slow response, and loss of memory."

Manson-Bahr, in his *Tropical Diseases*, includes ptosis, diplopia, amblyopia, and rarely epileptiform convulsions among the signs and symptoms, and states that later the gait becomes uncertain and of the spastic paraplegic type. This author mentions a very acute form of pellagra, described under the title of "pellagra typhus," characterized by intense prostration, high temperature, muttering delirium, pronounced nervous tremors, generalized rigidity, and convulsions. The acute cases reported in this paper seem not dissimilar.

The additional point that this syndrome arose in the course of other manifestations of vitamin B deficiency which are recognized as part of the classical picture of pellagra lends support to the view that it is itself an isolated manifestation of that disease. The B complex comprises several factors, and the experience gained in our camp suggested that there was a different time factor for each before evidence of deprivation showed itself, the mucous membrane and dermal lesions of pellagra appearing first and the nervous lesions later. It is of interest that not more than one-third of the cases of pellagrous encephalopathy here reported showed other evidence of deficiency, but this lack of association was reported by Spillane and Scott (1945) in their account of deficiency manifestations among German prisoners of war in the Middle East.

Conclusion

The above findings are based on 63 cases of a deficiency syndrome, which has been given the name of pellagrous encephalopathy, occurring among prisoners of war in Singapore. There appears to be sufficient evidence to include it among the manifestations of vitamin B deficiency and as part of the pellagra symptom complex. Previous reports have been made in the literature of limb weakness, and spasticity with and without extensor plantar responses (Wilkinson, 1944; Spillane and Scott, 1945; Clarke and Sneddon, 1946; Pallister, 1940), in association with other deficiency manifestations, but a clear-cut syndrome as reported here appears to be unique.

My thanks are due to all those medical officers in the Changi Prisoner-of-War Hospital under whose care these patients were admitted; and to Dr. D. Denny-Brown, of the Department of Neurology, Boston City Hospital, for his help and encouragement in the writing of this article.

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A scientific meeting and the resumed annual general meeting (for members only) of the Nutrition Society will be held at the London School of Hygiene and Tropical Medicine, Keppel Street, W.C., on Saturday, Feb. 22, at 11 a.m. The speakers and subjects at the scientific meeting are as follows: G. Fraenkel, Requirements of Insects of Known and Unknown Members of the Vitamin B Complex; O. Kestner, Importance of Mixed Food for Nutrition; T. F. Macrae and G. A. Childs, Nutritive Value of Food Served in the R.A.F. during the War; J. Ganguly, S. K. Kon, and S. Y. Thompson, Form of Vitamin A in Cow's Milk; R. Braude, Stimulation of Growth and/or Fattening of Pigs by Synthetic Oestrogens; G. Dunlop, Nutritional Variation of Soils and Pastures on Scottish Hill Grazings; E. M. Hickmans, S. Bishop, and Y. Williams, Effect of High Protein Feeding on Marasmic Infants following Operation for Pyloric Stenosis; Z. A. Leitner, T. Moore, and I. M. Sharman, Vitamin A in Rheumatic Fever. Non-members are admitted to meetings of the society only by the introduction of a member. Meetings of the society are private and no unauthorized account of its proceedings may appear in the Press. Further details of the society can be obtained from the honorary secretary, Dr. Leslie J. Harris, Nutritional Laboratory, Milton Road, Cambridge.

Medical Memoranda

Case of Ectopia Testis with Seminomatous Change and Torsion

The following case is interesting in that it illustrates three pathological conditions: first, ectopia testis of an unusual type; secondly, a malignant tumour of that organ; and, finally, torsion. The liability of malignant change in an ectopic testis is a statistically supported, albeit disputed, fact. Gordon-Taylor (1938) states that 15 out of 50 testicular tumours occurred in undescended testes. Tumours of the testis, however, are not common, and Barrington (1939) remarks that out of 9,714 admissions to St. Peter's Hospital for diseases of the male genital system only 14 were testicular tumours. In our case an extreme example of undescended testicle had undergone both malignant change and torsion.

CASE HISTORY

A man aged 38, married but with no children, had recently been discharged from the Army with a clean bill of health. He had once during his service—in June, 1945—had an attack of abdominal pain, but after 24 hours' observation had completely recovered. In June, 1946, he called in his doctor one morning because of slight abdominal pain and having had several loose stools during the night. On examination there was a generalized abdominal tenderness with considerable rigidity, but temperature and pulse were normal. His doctor therefore decided to see him later in the day before coming to any conclusion. When seen during the afternoon he had increased pain, together with nausea, and there was marked tenderness in the right iliac fossa. There was also a rise of temperature to 101° F. (38.3° C.). He was then admitted to the Victoria Infirmary, Northwich. Here examination confirmed these findings, and a provisional diagnosis of acute appendicitis was made. It was, however, noted that the right testis was absent from the scrotum, and the inguinal canal was not patent to the exploring finger. Consequently a reservation was made that there was a possibility of some morbid change in an ectopic testis accounting for the symptoms.

The abdomen was opened by a pararectal incision in the right iliac fossa. When the peritoneum was opened a quantity of blood-stained fluid escaped, and on exploring the pelvis with the hand a rounded mass was found in the retrovesical pouch. This was delivered and seen to be a globular mass the size of a cricket ball, which was plum-coloured and had the appearance of a twisted ovarian cyst. It had a twisted pedicle 1½ in. (3.75 cm.) long which emerged from the parietes at about the site of the internal inguinal ring. It was clamped, ligated, and divided near its base and the mass removed. There were no adhesions, and no difficulty was encountered. There was no sign of pelvic or lumbar glands, and the liver was palpated and felt quite normal. The wound was closed without drainage and the patient returned to bed. He recovered uneventfully.

The tumour was incised, revealing that it was the missing testis. It was sent for section to Dr. W. H. Grace, who reported that it was a seminoma which had undergone torsion. The patient's urine was later also submitted to Dr. Grace, who determined that the Aschheim-Zondek reaction was negative, but as this was about three weeks after the removal it could only be an indication that there was no large metastasis as yet. After discussion it was decided not to recommend deep x-ray therapy at this stage, and on this point we invite criticism.

COMMENT

Perhaps the chief interest of this case lies in the abnormal anatomy of the testis and in the complete, or almost complete, absence of symptoms as demonstrated by a successful service in the Army. The testis had picked up a complete visceral peritoneum and had come to be a free intraperitoneal organ—a very unusual state of affairs. That it had undergone torsion was perhaps not surprising after, owing to the seminomatous change, it had attained the size and weight it had. Nevertheless it must be assumed that the symptoms which led to operation and ultimate diagnosis of the condition were due to torsion, as no doubt was his attack in June, 1945, although this must have corrected itself, and to this fact the patient may, we hope, owe his life.

We wish to thank Dr. W. H. Grace for his pathology report.

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