inherently but their mental outlook has been, and is being, changed by contact with Europeans, and there is evidence that this Europeanization is an important factor in determining the liability of the West African to suffer from effort syndrome. European coastal trading posts were established nearly 500 years ago by the Portuguese. European influence was at first confined to the vicinity of such posts, but it gradually spread, and by the Bond of 1844 British "power and jurisdiction" were accepted by many of the tribes living in what is now known as the Colony. To-day a relatively large proportion, although still a minority, of the people in the Colony are European in their outlook; their mode of living and thinking has been affected by close contact with Europeans, and by the radio, cinemas, newspapers, and so on. It is these southern tribes which supply the African lawyers, priests, and doctors, and "black-coated" workers such as teachers, clerks, and accountants. Our relations with Ashanti were of an interrupted and sanguinary nature until, after the Siege of Kumasi, Ashanti became a British colony in 1901, since when European influence has been steadily increasing. It is noteworthy that of the three patients from Ashanti two lived in Kumasi, the capital town and administrative centre, while the third lived only 10 miles north of the town. The Northern Territories became a British protectorate in 1901, but this change has had comparatively little effect on the life of the native.

All the patients under review showed evidence of their contact with Europeans. Thus they all spoke English—only one so poorly that an interpreter was required throughout the interview; but I would estimate that in a general ward an interpreter would be required in at least half the cases if a full history was to be obtained. Further, all these patients were Christians; in a general surgical ward of 40 beds 20 patients were Christians, 15 pagans, and 5 Mohammedans. Huxley (1944), surveying conditions in British West Africa, states: "Not more than one child in about ten gets any education at all," yet only one of the patients had received no schooling. On the whole their intelligence was well above that of the average native of the Gold Coast. I had the opportunity of observing Case 2, the Creole from Sierra Leone, who was posted to the hospital as a nursing orderly, and I found him to be perhaps the most intelligent African in the unit, being secretary to a study circle formed by some of the English-speaking personnel.

The response of the individual to mental conflict and such emotions as anxiety and fear, though depending to a great extent on his innate personality, is also affected by his upbringing, education, and experiences. It is generally accepted that a crude solution to mental conflict—as, for instance, conversion hysteria—is found more often in the less intelligent, while in the more intelligent occur such reactions as effort syndrome, which are subtler and less obviously related to the causative emotion. In the last war Rivers (1918) pointed out that conversion hysteria was more common in the "other ranks" and effort syndrome in the officers, and he suggested that one possible cause may be found in the difference of education, the officer being more widely educated and his mental life more complex and varied. I think it is reasonable to apply Rivers's hypothesis to the Gold Coast West African as between Colony man and N.T. man, taking into consideration the generally lower plane of intellect found in the West African. The patients in this series have, on the whole, been much influenced by "white" civilization. Their sphere of thought has been widened, and their ability to reason increased by knowledge and experience, this process being, of course, accompanied by a repression of the cruder instincts through a stricter mental censorship. The N.T. man still thinks simply, his powers of reasoning are limited, and he is much influenced by suggestion. During the period under review many cases of conversion hysteria were seen in the hospital; I regret that I have no figures or notes available, but I feel safe in stating that the majority of these cases were N.T. men. Certainly I found the language difficulty a great hindrance in getting *en rapport* with these cases, in contrast to the comparative ease with which one conversed with the patients with effort syndrome.

Summary

Twelve cases of effort syndrome in West African soldiers are recorded, and a summary of the case histories is given. Some of

the possible predisposing causes are noted. It is suggested that the influence of European civilization is an important factor in determining the incidence of effort syndrome in the West African, and evidence is offered in support of this suggestion.

My thanks are due to Prof. Sir Francis Fraser, and to Dr. G. L. Alexander of the Colonial Medical Service, for criticism and advice; to Lieut.-Col. R. R. Bomford, R.A.M.C., who encouraged me to undertake this investigation; to Major T. Hodgson, M.B.E., R.W.A.F.F., for the figures relating to the enlistment of recruits; and to the Director-General, Army Medical Services, for permission to publish this paper.

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Medical Memoranda

Confluent Smallpox Treated with Penicillin

The use of penicillin in the case recorded below was a logical attempt to minimize secondary infection of the very extensive lesions of a severe confluent smallpox. The view that the patient had everything to gain and nothing to lose was encouraged by Prof. J. W. S. Blacklock, of Glasgow Royal Infirmary, to whom I am indebted for the generous supply of penicillin. The diagnosis was one of great simplicity, and the prognosis was given as the gravest possible by Sir Alexander Macgregor, medical officer of health, Glasgow, Dr. R. J. Peters, deputy medical officer of health, and Dr. J. Watson, medical superintendent, Robroyston Hospital, Glasgow.

CASE HISTORY

The patient was an unvaccinated merchant seaman aged 38. He presumably contracted smallpox in a North African port, but the disease did not develop until he was at sea, bound for home. In the morning of March 26 he shivered repeatedly, and complained of headache, pains in the limbs, and sore throat. He was isolated in the ship's hospital, there being considerable fever and constitutional upset. The eruption began to appear on the forehead late on the 28th. He was removed to Robroyston Auxiliary Hospital on March 30, shortly after the ship reached port.

He was afebrile when seen on admission, and seemed only moderately ill. The eruption was very pronounced over the whole body. On the face it was made up of coalescing vesicles of large size. The scalp was markedly involved, though confluence was not so complete. There were numerous vesicles on the mouth, palate, and gums, especially so where teeth had been removed. Some degree of laryngitis could safely be attributed to lesions in the respiratory passages. On the trunk the rash was profuse and was papular and papulo-vesicular. On the wrists and hands it was practically confluent, particularly over a scar on the left leg. The trunk had very numerous lesions, there being many even on sites usually free of eruption. Of the lesions in general it can be said that the areolae were marked on the head and neck and less so elsewhere.

It was expected that a stormy illness would follow a rash of such profusion, and accordingly penicillin was given by intramuscular injection, it being feared that delirium might interfere with a continuous intramuscular drip. He was given 20,000 units of calcium penicillin early on March 31, by which time he was again sharply febrile. The injections were repeated every fourth hour, and later, as the rash matured, every third hour. By April 4 it was obvious that the illness was not likely to prove as severe as had been expected, and, the patient being fully co-operative, a continuous intramuscular drip was started, which gave him considerable relief. He received 100,000 units daily till April 7, by which date he was free of all constitutional upset and in fact convalescent, it being the 13th day since the onset. In all he received 800,000 units of penicillin. The highest temperature was 101.8° F., recorded on the 8th day of illness. Thereafter there was a steady fall by lysis. At no time was there any feature of clinical interest in the heart, lungs, or urine.

COMMENT

The evolution of the rash presented some points of interest. On the face it followed a fairly classical course, becoming a wholly confluent pustular mask. Crusting and desiccation were, however, pronounced by the 7th day of efflorescence, or the 9th day of his illness. Thereafter the skin of the face cleared rapidly. Facial oedema lasted no more than 24 hours, and was never very severe. At the time of his discharge, on April 25, there was no evidence of excess granulation tissue, and pitting promised to be minimal. On the trunk and limbs two features were noticeable: most of the lesions failed to increase in size after starting penicillin therapy, and most of them crusted, without going on to pustulation, on or about the 6th day after the eruption first appeared. Desquamation was complete everywhere except on the palms and soles by the 13th day of the eruption, or the 15th day after the onset of the illness.

It is not suggested that penicillin alone was responsible for the happy issue. It is well recognized that the immunity responses may so alter that the outcome of such an illness may well transpire to be other than that first envisaged. Nevertheless I am convinced that penicillin in this instance achieved all that was expected of it, whereas in comparable illnesses of previous outbreaks the intensive use of sulphonamides failed to prevent several fatalities. With the probability of further virulent smallpox reaching our ports, it may well fall to others to confirm the impressions gained from the treatment of this patient.

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Robroyston Auxiliary Hospital,
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Empyema complicating a Pneumothorax treated with Penicillin

The following case is interesting in that a pneumothorax occurred as the result of swallowing a safety-pin and a cure was effected by the use of penicillin.

A girl aged 2 years was admitted to hospital on Dec. 17, 1944, having swallowed a safety-pin, which lay point upwards opposite thoracic vertebrae 6 to 8. The pin was removed by a rotatory movement (in the absence of a pin-closer), and as injury to the oesophagus was suspected the patient was started on a course of sulphathiazole.

A radiograph taken on Dec. 18 showed a right-sided pneumothorax. Nothing except the sulphonamide was given by mouth from Dec. 19 to 22, and the pneumothorax did not increase in size after Dec. 20. The patient now appeared well, but on Dec. 23 there was a dullness at the right base, and a radiograph taken on Dec. 27 showed a small pleural effusion. On Dec. 30 a few c.cm. of thin pus was aspirated, and aspirations were repeated every other day until Jan. 4, 1945, when 50 c.cm. of thick pus was obtained. Culture of this pus showed pneumococci, which were penicillin-sensitive. The temperature ranged between 98° and 100° until on Jan. 1 it reached 101°. On Jan. 2 sulphathiazole was discontinued.

Penicillin therapy was started on Jan. 4, when 60,000 units in 60 c.cm. of normal saline were injected into the right pleural cavity. The injection was repeated on Jan. 6 and 8, and after the third injection the temperature remained normal. 40 c.cm. of thick pus was aspirated on Jan. 11, and a fourth injection was given on that day. This pus and 50 c.cm. aspirated on Jan. 17 were sterile, so that the fourth injection may have been unnecessary. Subsequent radiographs showed gradual expansion of the lung but persistent opacity at the right base, which was interpreted as thickened pleura, as no pus was aspirated after Jan. 17.

The patient was discharged on March 17. On March 27, when seen at the out-patient department, she was well, and a radiograph showed complete expansion of the right lung with a small amount of pleural thickening at the parietes.

Hull.

L. A. QUIRK, M.D.

Volvulus of [Caecum with Reversed Rotation of Mid-gut

Volvulus of the caecum associated with reversed rotation of the midgut is a rare condition, so that details of the following case may be of interest.

CASE REPORT

A woman aged 59 was admitted to hospital on Sept. 8, 1943, and stated that twenty-four hours earlier she had begun to have lower abdominal colicky pains, and that her abdomen had become larger. She had vomited several times and had not passed faeces or flatus since the onset of the pain. One week before the present attack she had experienced a similar pain which had lasted for two hours.

On examination the patient was a thin, frail woman in fairly good general condition. The abdomen was distended and tympanic, the distension being chiefly central abdominal. Audible peristalsis was present and rectal examination revealed no abnormality. A Ryle's tube was passed into the stomach, and the fluid withdrawn was clear and bile-stained. A diagnosis of large-bowel obstruction was made and operation performed.

At operation under a spinal analgesic a right paramedian incision was made and the following condition found: a volvulus of the caecum, first part of the ascending colon, and lower ileum was present, the volvulus consisting of two turns about its axis. The greatly distended caecum was lying in the centre of the abdominal cavity. When the volvulus had been untwisted it was found that the caecum and ascending colon were mobile and had a definite mesentery. The transverse colon just distal to the hepatic flexure disappeared beneath the mesentery of the small intestine, and reappeared again on the left side. Drainage of the caecum was performed by means of a tube inserted through the terminal ileum, the tube being brought out through a small gridiron incision in the right iliac fossa.

Progress.—The ileostomy tube was removed one week later, and the ileostomy rapidly closed. The patient was discharged from hospital three weeks after operation.

Crumpsall Hospital, Manchester. NORMAN G. GODFREY, F.R.C.S.

Reviews

A REVOLUTIONARY SCHEME OF LOCAL GOVERNMENT

Physician, Heal Thyself. A Study of Needs and Means. By G. Scott Williamson, M.D. (Pp. 133. 5s.) London: Faber and Faber.

The title of this book gives little clue to its contents. It is a plea for a revolutionary scheme of local government which Dr. Scott Williamson calls "Liberal Socialism," defined as "the government of society by the individual for the individual." He thinks he can reconcile the claims of the community with those of the individual. He gives a clear and dogmatic exposition of this thesis applied in detail to our medical services. The author is a convinced believer in the rights of the individual, which have been neglected by what he calls "monopoly socialism"—government by bureaucracy. Medical services should be primarily local and directed not centrally but by the residents in the area, who could be trusted, if the means were provided, to see that good medical service would be forthcoming. His experience as medical director of the Peckham Pioneer Clinic has inspired many suggestions which seem reasonable, however Utopian they may appear at first. The overriding duty of the doctor is "to protect his patient," as his "counsel for the defence"; therefore the patient must have his own doctor, and not the State's doctor. Local clinical centres are essential, and all practice must be centred there. They must be "fully equipped with the tools and services required for efficient diagnosis and treatment"; staffed by general practitioners, who are the keystone of the whole service; the consultants and specialists are advisers used by the doctor in charge of the patient. Great stress is laid on a free transportation service for patients to the centre, to their homes or employment, and to hospital when necessary. So much of the time of doctor and patient might be saved by this as would be equivalent to adding 1/2 or 1/3 doctors to the list, and so enable the new service to start at once. To detect the minor ailments, whose importance he cannot stress too much, all members of the family should be overhauled periodically as at Peckham. These centres must have district hospitals, the beds being under the control of the doctors who send in the patients. "Their own doctor must see them through every illness because only he can assess the success of any treatment." "The sick person is the doctor's *patient* and the specialist's *case*." The specialist would be interested, if perhaps annoyed, by what Dr. Williamson has to say about his real status—viz., that of a technical adviser, on certain aspects of a *case*, to the doctor who is in charge of the *patient*. The future consultants and teachers should be "super-general practitioners" chosen from among those who have "succeeded in, and not retreated from, general practice." They must be elected by the men among whom they work. They would act as teachers and as executive officers, seeing that the instructions of the patient's own doctor are carried out. Patients must be paid their full wages while sick, their places being taken by apprentices and others who are being trained to do that particular work; trade unions should be responsible for this supply. He holds it to be as logical to pay the workers essential for the community, and to keep their jobs open while sick, as it is to do the same for civil and other servants of the Crown. The centres and hospitals should be under the control of lay committees elected by the potential patients in the area, as being the only people who can say whether the service is satisfactory or not. The role of the central Government is to collect the insurance contributions. It is merely the agent of the individual subscriber, and should no more be allowed to spend his money than his bank would be allowed to spend his savings. Subscriptions to the service should be based not on a flat rate but according to means, and these can be ascertained by dividing the income of the family by the number of dependants. "The rich must not be allowed to contract out of any public service." The local share of the money collected must be handed over to the local committees to spend according to the needs of the locality. The patient will pay his own doctor by drawing a cheque on his "local medical bank." He will no longer be a "panel patient" but "a patient with a cheque book." A suitable way