A NOTE ON DYSENTERIC ARTHRITIS.

BY

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JUDGING from the scanty literature at my disposal, the occurrence of arthritis, single or multiple, as a complication or sequel of amoebic dysentery has received very little attention, though some writers, such as Phillips, briefly refer to it, and Manson states that a condition resembling gonorrhoeal rheumatism has frequently been noted as a sequel, and that at least one epidemic has been recorded in which a large proportion of the cases became affected in this way. Osler also briefly refers to the possibility of its occurrence.

As, however, its practical importance seems to have been overlooked, I write this note with the object of pointing out that in all cases of arthritis occurring in our troops a history of dysentery should be inquired for, and, if such a history is obtained, a course of emetine should at once be ordered. In my experience of six recent cases emetine clears up the arthritis most rapidly after other treatment has failed.

In four out of the six cases there was definite proof that amoebic dysentery had been present, either by the finding of amoebae in the stools at the time the arthritis was present, or owing to the fact that the patient had been previously treated in this hospital for amoebic dysentery, and that amoebae had been found at the time of this treatment.

In two cases the history of dysentery while at the peninsula was quite definite, but I had no means of determining whether the dysentery had been of the amoebic or bacillary variety. One of these cases—a bad one—was given both serum and emetine; the other was treated by emetine alone, and both rapidly recovered.

The case that first called my attention to the subject was that of a man who was admitted on December 4th, 1915, suffering from well-marked amoebic dysentery, confirmed by examination of the motions. He was given a course of 5 grains of emetine, and rapidly improved as far as the dysentery was concerned, but remained weak and very much pulled down.

On December 29th, 1915, our bacteriologist (Lieutenant Willmore) reported the stools as containing no amoebae.

On January 7th, 1916, he complained of severe pain in the right knee, and on the next day the joint was found to be much swollen, due to the presence of fluid and general thickening of the periarticular tissues. The condition, in fact, as Manson states, exactly resembled that of gonorrhoeal rheumatism. The patient was put on large doses of sodium salicylate and alkalis, but on January 9th the right knee was worse, the left knee was also involved, and the right elbow and both wrist-joints were also painful and swollen. By January 14th there was no improvement; the patient could not move in bed owing to the pain, and the slightest attempted movement of any of the affected joints caused acute agony. On this date it was decided to stop the salicylates, and to start a course of emetine injections.

By January 18th the wrist and elbow had practically completely cleared up, and the knees, while still swollen, were enormously improved, and could be moved freely without pain. A week later there was still further improvement, and in the first week of February the patient was able to get out of bed for a short time daily.

The other cases resembled this as far as the appearance of the affected joints were concerned, except that in none of the others were the joints of the arms involved, the knees being the joints to suffer most, as they were affected in all of the cases, while in two the ankles also, and in one the right hip-joint, were involved.

The complete proof that these cases of arthritis were amoebic in origin is wanting, as I did not feel justified in aspirating the joints, but if we may rely on the therapeutic test of rapid recovery under the use of emetine, there is little doubt as to the nature of the condition.

It is possible that the severe strain put on the joints by the life of a soldier renders them unusually liable to suffer, and if there should be any extensive appearance of the condition it is important that medical officers should be on the look-out for it, and should at any rate give anti-dysenteric treatment a trial.

THE King has granted Dr. Gordon O'Neill, Professor of Obstetrics in the Peiyang Medical Council, Tientsin, permission to wear the Seventh Class of the Order of the Excellent Crop, conferred upon him by the President of the Chinese Republic.

PRELIMINARY NOTE ON A DISEASE CALLED
"BUNGPAKKA,"FOUND IN THE NORTHERN TERRITORIES
OF THE GOLD COAST.

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THIS curious disease has been known to the natives of West Africa for some time, as the Chief of Tansia told me that he had had it at the time when the slave raider Samori overran the Northern Territories about twenty years ago. It goes by many names, according to the severity of the outbreak, to the locality and tribe in which it manifests itself. The various natives of the Gold Coast, the Northern Territories, the Nigerias, and the Senegal are said to recognize it readily, and it is probably even more widely spread, but information on the subject is scanty. In the Wa district, at any rate, certain low-lying villages in the swamps seem to be more adapted to the incidence and spread of "bungpakka" than others.

Names.

The multiplicity of names will probably give one an idea of its prevalence; thus, in the following languages its synonyms are:

Hausa: *Chewan daji* (?). In Robinson's Hausa dictionary is mentioned "a fever which breaks out when the guinea-corn is ripe (*Chiero na sabon dawa*). To prevent being attacked by it the Hausas give presents of dawa to the poor."

Dagarti: *Bunyura, Bunyuri, Bungura.*

Walla: *Eunggura.*

Lobi: *Bungpakka, Bungpwakka, Bungpwakka, Bungworra.*

Season.

It occurs both sporadically and epidemically at the time when the guinea-corn and rice (*hakki*) are ripe and ready for harvesting—that is to say, just after the rainy season in the Northern Territories.

Sex and Age.

It attacks both sexes, and it occurs at all ages in those who are able to eat grain. Adults appear to be more prone to it than children.

Etiology.

The natives regard it as infectious. Some ascribe it to the sun's activity at this time of the year. It appears to me to be due to a micro-organismal infection which produces a neuro-toxic effect as well as a local reaction. In every one of the pus slides I examined I found a heavy infection of *saccharomyces*. Every precaution was taken to prevent contamination, and yet the fields showed yeast cells in all stages of gemmation. The slides were made, fixed, and stained as soon as the pus was taken from the abscess. The cultures showed a true fungus growth. No experiments were tried owing to lack of material. Personally, I am inclined to think that the disease is caused and perpetuated by a yeast fungus; the yeast spores probably remain in the mud bins in which the grain is stored awaiting a favourable opportunity to grow, they get their chance after the rains, when the interior of the bins becomes a hot moist chamber. The grain becomes infected in the bin, the people eat the grain raw, and being usually constipated, their intestines are secondary incubators. The yeast cells are probably absorbed from the intestine somewhat in the same way as fat is by migratory leucocytes, and thence into the general circulation.

Incubation Period.

The definite incubation period appears to be three days, during which there is *malaise*, headache, a sense of fatigue, anorexia, intense thirst, and constipation.

Symptoms.

The onset is sudden; one or more rigors may usher in the attack. The temperature rises rapidly to 103° or so. There is extreme tenderness in the muscles which are to be the seats of inflammation. Within twelve hours painful tumours make their appearance in the affected muscles; only the voluntary muscles are affected, and the abscesses seem always to occur near their insertions. There may be only one nodule, or a crop. In some