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MALTA FEVER

It is said that Metchnikoff, in his bacteriology lectures at the Pasteur Institute, used to produce a world map and point out how the countries in which Malta fever was prevalent were those which formed part of the British Empire. "This is not due" he would explain, "to any evil influence of the British—it merely means that only the British have worked at Malta fever and learned how to diagnose it" (1). For "British" substitute "Army medical officers" and his statement would have still read true.

In 1863, Assistant Surgeon J. A. MARSTON gave what was probably the first accurate description of the disease as he saw it in his patients stationed in the Malta Garrison, and indeed he gave a most poignant description of his own sufferings (2).

For the next half century the fascinating problems presented by this disease were gradually unravelled mostly through the clinical acumen and laboratory work of Army medical personnel. In a commendable expression of *esprit de corps* Major Glen Allen wrote in this Journal "As it was owing to the perseverance and acumen of an RAMC officer that the real cause of the fever was first discovered, and its right to be considered a specific disease, distinct from enteric, malaria, etc., demonstrated; and as it is also due to the work of the former Professor and Assistant Professor of Pathology at Netley, that we possess the method of serum diagnosis, Mediterranean fever may be considered in a great degree as the special property (if I may use such a term) of our Corps" (3). The Army medical service is justly proud of such members as MARSTON and HUGHES, WRIGHT and SEMPLE, BRUCE and HORROCKS.

As a result of the early Army medical observations and investigations it came to be realised that Malta fever was not limited to the island of Malta. An editorial in this Journal in 1904 listed the following places where the disease had been detected, namely: Spain, Gibraltar, Italy, Greece, Turkey, Palestine, Algiers, Tunis, Zanzibar, India, Hong Kong, Fiji Islands, Philippine Islands, Mississippi valley in North America, Venezuela, Brazil, and Cuba and Puerto Rico in the West Indies (4).

The infection, now known as Brucellosis, is recognised in our time as 'one of the most important of the zoonoses in terms of the toll taken in human illness and economic losses in many areas of the world' (5). In the U.K. probably over one hundred human infections occur every year, (and this figure may be very conservative (6, 7)), with a fatality rate of one per cent to two per cent (8); while brucellosis in animals cost the country an estimated loss of £16 million annually (9).

Sir Themistocles Zammit is not so well known, outside his native shores, as the more internationally illustrious Sir David Bruce. He was the Maltese member of the Joint Mediterranean Fever Commission set up by the Services and the Maltese Civil Government to investigate Malta Fever; Colonel David Bruce, F.R.S. was appointed Chairman of the Royal Society Advisory Board of experts to supervise the investigations of the Commission. Vella (10) in a recent review states that 'at some stage in the investigation the supply of monkeys had run short, and it was therefore decided to investigate the possible use of the goat, which was so readily procurable in the island,

for the 'in vivo' experimental work, and it was apparently this happy and fortuitous event which led to the solution of the final problem'. It was Zammit, in actual fact, who first incriminated the goat as the animal host of the '*Micrococcus melitensis*'.

In the historic report, David Bruce wrote, 'Dr. Zammit informed the Chairman that he considered goats to be susceptible to Mediterranean fever, and the disease is spread to human beings by goats. On June 23, 1905 Major Horrocks wrote that he had discovered the *M. melitensis* in the milk of an apparently healthy goat, and on the 26th he further wrote that he had already found the *M. melitensis* in the milk of five goats taken from two different herds, and that Dr. Zammit had found it in the blood of one of these goats. Horrocks also said that the milk of the goat fed by Dr. Zammit last September was still crammed with *M. melitensis*. It would therefore appear that the Commission are on the eve of an important and may be far-reaching discovery' (11).

To limit the disease and if possible to eliminate it, the Food and Agricultural Organisation (F.A.O.) and the World Health Organisation (W.H.O.), upon request of their member countries, undertook a joint programme for combating brucellosis. A joint FAO/WHO Expert Panel on brucellosis has been formed and Brucellosis Centres have been designated in various countries to forward work in this field (12). Under the auspices of the F.A.O., a congress was held last year in Malta to discuss the control of brucellosis in the Mediterranean countries. Two commemorative postage stamps have been issued by the Malta Post Office, depicting :-

- (i) A goat and laboratory equipment symbolising the fight against the disease.
- (ii) Portraits of Bruce and Zammit, the two men closely connected with the early research into the disease.

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LETTERS TO THE EDITOR

Due to financial restrictions in printing it is regretted that "Letters to the Editor" may be delayed, but every effort will be made to publish at the earliest opportunity.

REPRINTS

With effect from Volume III, Issue No. 3, 1965, reprints ordered by Authors will be charged at cost and not at half the cost price for the first 50 reprints. "Important Notice" inside front cover has been amended accordingly.