OCCURRENCE OF HISTOPLASMOSIS IN ASIA

by

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ABSTRACT

The occurrence of histoplasmosis in Asia has been reviewed. Authentic cases of histoplasmosis in man are known from India, Malaysia, Singapore, Indonesia, Thailand, South Vietnam and Japan, but the autochthonous nature of the cases reported has not been established unequivocally. Of the 30 cases of human histoplasmosis recorded from Asia, 15 were confirmed by positive cultures, and their country-wise distribution is as follows: Malaysia – 4, Indonesia – 3, Singapore – 2, Thailand – 2, South Vietnam – 2 and one each from India and Japan. Authentic cases of histoplasmosis in animals are currently unknown from Asia, and likewise there is no information on the natural habitats of the etiologic agent *H. capsulatum* in this part of the world except for a solitary isolation from soil in bat-infested cave in Malaysia.

The available data on the prevalence of cutaneous hypersensitivity to histoplasmin indicates that histoplasmin sensitivity is absent in Israel, Syria, Saudi Arabia, Lebanon and Qatar; sensitivity is negligible or of a very low order in Iran, Iraq, Pakistan and India, and for these countries it has been even suggested that the positive reactors observed may represent cross-sections with some unknown fungus/fungi which may be antigenically related to *H. capsulatum*. In Japan the frequency of histoplasmin positive reactors has been negligible except in groups of persons working near a U.S. Army base and in factories which used soil and sand imported from overseas including the U.S.A. In Burma and Taiwan the bulk of positive reactions in which the induration did not exceed 8 mm in diameter has been considered probably non-specific. In Indonesia and South Vietnam, on the other hand, where less than 10 per cent of the reactions tended to concentrate around an induration of 16 mm sensitivity to histoplasmin may represent specific *H. capsulatum* infection in certain cases. Likewise the frequently large reactions reported from the Philippines have also been interpreted to represent specific histoplasmosis infection.

The recovery of *H. capsulatum* from soil coupled with the finding of well-documented cases of histoplasmosis in Malaysia suggests that the disease is endemic in that country. It is not unlikely that histoplasmosis is endemic in other parts of Asia although this has not been demonstrated so far. Comprehensive mycological, serological and soil studies are indicated in order to investigate the prevalence and incidence of histoplasmosis and to map out the endemic areas of the disease in Asia.

INTRODUCTION

Histoplasmosis, an important systemic mycotic disease affecting man and animals, was at one time regarded as a rare disease with its geographic distribution localised to certain parts of America, in particular eastern and central United States. Studies during the past two decades have made it increasingly recognised as a common

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disease with wide endemicity, and it is now known to have infected at least thirty million people (1). According to another estimate (34) about 500,000 persons acquire the infection every year in the United States. Currently histoplasmosis is not only well-known in the American continent but cases are also known from Europe and Africa (4, 32, 77). In Asia, on the other hand, the precise status of histoplasmosis is not well-defined. Interest in systemic mycoses being a new development in this part of the world, it is not surprising to find that information on the prevalence and incidence of this disease in this continent is not adequate. Indeed there are several countries (Fig. 1) notably China and the U.S.S.R. where the disease has apparently not been explored at all; in other Asian countries the studies done so far have been sporadic and it will be premature to draw any definite conclusions. Nevertheless, there is no denying the fact that authentic cases of histoplasmosis have been reported from certain parts of Asia although the autochthonous nature of the cases described has not been established unequivocally. This paper is an attempt to review the available evidence on the occurrence of histoplasmosis in Asia.

CASE REPORTS

Thirty cases of histoplasmosis in man originating from seven countries of Asia (Table I) have been reported in the literature. A few scattered cases of histoplasmosis have also been reportedly observed in Turkey (63, 75) but these are excluded from this review as the relevant references were not available. Of the eleven cases reported from India seven were diagnosed within the country (Table II) while the remaining four were diagnosed in U.K. (Table III). Unfortunately all the cases diagnosed in India except one are poorly documented. The first case report from India is that of Panja & Sen (67) from Calcutta. The case was diagnosed by the reported observation of intracellular organisms in skin lesions, and by the isolation of an organism of 'fungal nature' whose description was not included. Positive cultures were also claimed in another case of histoplasmosis (82) described from Calcutta, but the description given, i.e., 'A non-mycelial greyish white growth was observed about the eleventh day on blood agar medium inoculated with the splenic material and incubated at room temperature' is not diagnostic of Histoplasma capsulatum. The reported isolation of H. duboisii from the sputum of a patient in Poona as also from soil in that area (46) was based on an erroneous identification of the culture which actually proved to be Thielavia sepeditum (3, 29). The fourth case (17), like the first two, also originated from Calcutta; it was stated in this case that nucleated yeast cells resembling H. capsulatum were present in stained smears from the ulcer as well as in sections of the biopsy and the fungus was reportedly isolated from sputum and inguinal lymph glands. In the absence of any description or illustrations of the fungus it is, however, dif-