The Dwelling OF Two Previous Cases OF Kala Azar

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Abstract

This is a contribution to study the dwelling of two previous cases of kala azar in the endemic area. In order to assess the possible ecological causes of the incidence and the prevalence of visceral leishmaniasis in central Iraq.

Introduction

The high number of the reported cases of kala- azar was in December, January, February and March (1,2,3,4,5,6,7) .The majority of the patients were infants of two years old(6,7,8,9).

The central region of Iraq is the main traditional endemic area with this pest disease (1,2,4,8,9,10,11,12). Also the incidences was reported in north and south of Iraq [6,7,10,13,14,15]. Mahmodiya, Youssifiya Latifiya, Sowera, Aziziya, Madien, Faloja and Abougreb are well known as traditional foci of visceral leishmaniasis in central Iraq (1,2,5,7,8,14,15).

The endemic area is a wide alluvial plain, cultivated with many kinds of plants. The human dwellings are cement or mud made and these of animal shelters are usually mud made. The villagers used the cattle's manure as a source of energy. The man activities that affected the prevalence of visceral leishmaniasis in the endemic area were changed in the last decade (13).

The breeding of the livestock makes a suitable condition for both the vector and the reservoir (3,4,8,9,10,11,12,13,14). Also the cultivated area was increased in Iraq during the last decade.

Method and materials

- The dwelling of two previous cases is in Al-Mahmodiya about 50 km in the south of Baghdad. The focus was visited biweekly during 1999.
- Two visits of a physician were performed during 1999 for checking all the children of the focus with blood smears of about 15% of them.
- The entomological studies were achieved by using four CDC light traps. .
- The meteorological data were reported from Iraqi meteorological service, and with small portable Thermo –hygrograph.
- The map of the human dwellings, animal shelters, wind direction and the expositions were designed. Also the resting and sleeping places of the family in the nights and the places of the dogs were carefully noted during the study.

Result and Discussion

The two cases were reported in 1989 and 1998 respectively from the same dwelling. The previous cases were a girl of 14 years old and her brother of 4 years old. Both cases had been infected in two years old (6,13,14,15). The animal shelters are in the west of the dwelling (Fig.), where are very suitable breeding and feeding places for the sandflies (dark place, animals, manure, straw, deep soil cracks and humidity) (1,2,3,5,9,10.13). Also the main directions of the wind during the summer nights in Iraq are northwest with slow breezes.

The previous cases which were reported in this focus during the three last decades were mainly in a few meters in the west of the dwelling.

Unfortunately the resting-places of the two mothers were a few meters in the east of the animal shelters (3, 4) (Fig). Also in the hot nights of July and August the density of sandflies was the highest [2,3,4,9]. It was noted that the resting-places of the dogs were a few meters from the beds of the children and this fact increased the probability of the infections rate in biting times (4, 7,10,14,15).

This study proved that The ecological factors and man made factors increased the probability of infections in the study focus (6,8,10).

It seems also that the exposition of human dwellings and animal shelters play an important role in the prevalence of the disease(6, 9,13) (fig.)

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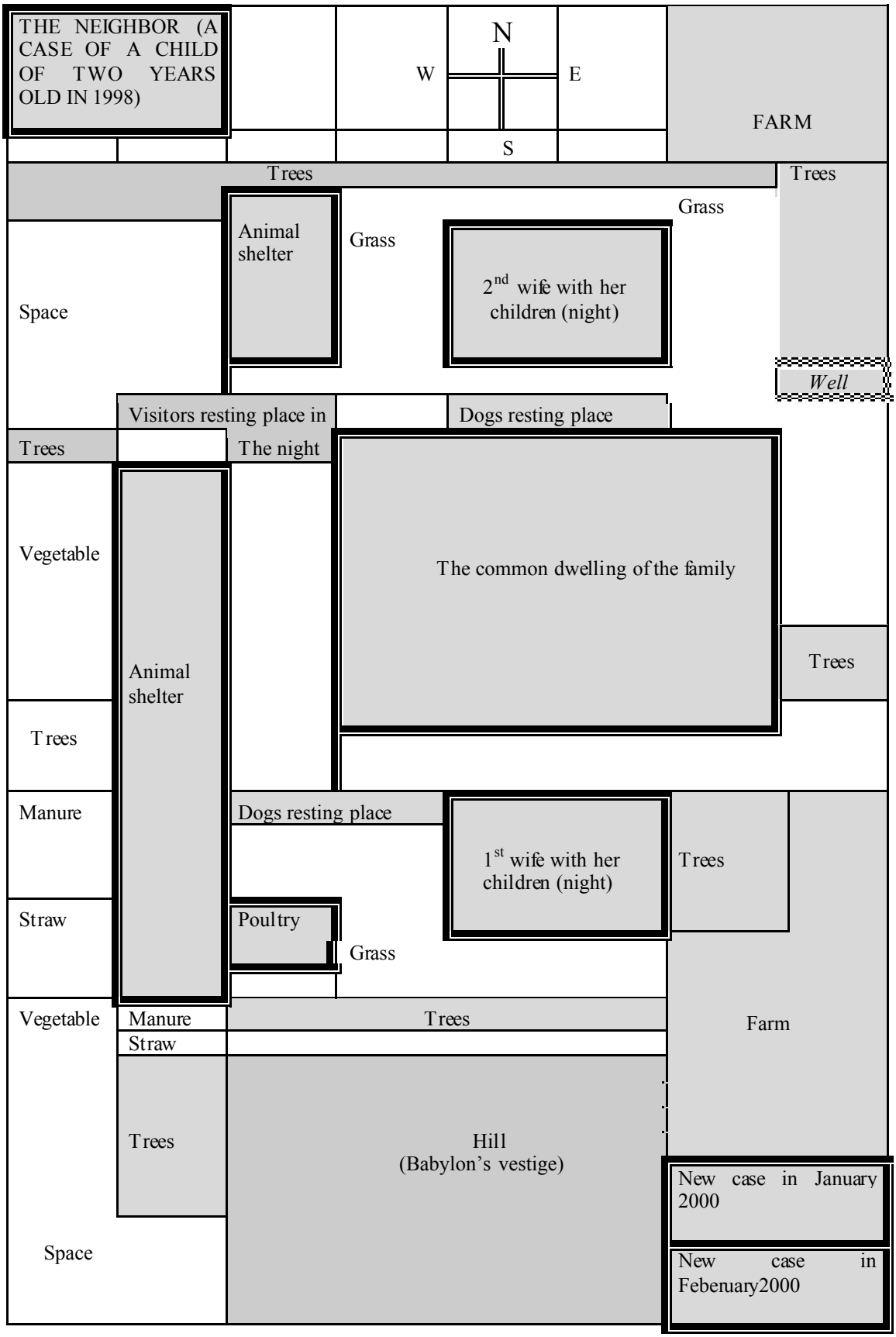

Fig.(1) showing the dwelling of the two cases of kala azar.

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دراسة مسكن لحالتين سابقتين لمرض الكالازار

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الخلاصة

دراسة مسكن لحالتين سابقتين لمرض الكالازار في المنطقة الموبؤة بالمرض من اجل تحديد العوامل البيئية المحتملة للإصابة و مدى علاقتها بالعوامل البيئية و وبائية هذا المرض في هذه المنطقة .