NEW CASES OF LEISHMANIASIS VISCERALIS IN SOUTHEAST BULGARIA

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ABSTRACT
Visceral leishmaniasis (VL) is a vector-borne protozoan infection transmitted by Phlebotomine sandflies, the primary hosts of the infective Leishmania donovani. In the Mediterranean region VL is caused by Leishmania infantum. We studied two VL-infected men (50- and 67-years old) from Stara Zagora region of Bulgaria. Clinical diagnosis was based on the clinical signs of visceral leishmaniasis such as splenomegaly, hepatomegaly, and high undulating fever. Leishmanial parasites were assayed by light microscopy of bone marrow and anti-Leishmania infantum antibodies were looked for via indirect immunofluorescence. Was used Glucantime (N-methyl glucamine antimoniate) 20 mg/ for antileishmanial therapy. LV in the older man was complicated and had finished by exitus letalis.

Key Words: leishmaniasis visceralis, splenohepatomegaly, anaemia, undulating fever, Glucantime.

INTRODUCTION
Short historical review, incidence and importance of leishmaniasis among humans
The first credible communicated cases of Kala-azar or visceral leishmaniasis, were reported on Greek islands of Hydra and Specia in 1835 by Roeser. W. Leishman in 1900. Ch. Donovan in 1903 discovered the agent of visceral leishmaniasis in splenic punctate in India. L. Rogers detected flagellar forms of leishmaniae In 1908, Nicolle proposed that dogs were reservoir hosts of visceral leishmaniasis in the Mediterranean region. According to the World Health Organisation (WHO), over 12 million people from more than 80 countries are infected with leishmaniae. The visceral leishmaniasis, caused by Leishmania infantum is seen in most Mediterranean and Middle East countries. In Europe, the disease was sporadically detected in Malta, Portugal, Spain, Italy, Yugoslavia, Greece, and Bulgaria. The first case of visceral leishmaniasis in Bulgaria was described by V. Mollov in 1921. From 1988 to 2004, 83 clinical cases have been reported, including a case in a 4-month old baby. The nosogeographical prevalence of VL was accentuated – mainly in South Bulgaria, the morbidity rate in the region of Stara Zagora being 50.7% [1, 2, 3, 4].

The Mediterranean clinical geographical variety of visceral leishmaniasis is a transmissive zoonosis, with dogs and Canidae family representatives being the main reservoirs in Bulgaria. In them, the disease occurs in a generalized form [5]. It is transmitted by vectors from the Plebothomus genus. Humans could be involved in the zoonotic cycle of L. infantum/zooanthroponotic cycle/ [6, 7]. Leishmania infantum is an obligate intracellular parasite that affects severely the organs of monocyteic macrophageal system in man [1, 2, 3, 8, 9, 10, 11].

In this paper we present two patients of the age of 47 and 67 years, living in truly endemic region in South-East Bulgaria, that have not travelled abroad, and therefore,
allowed us to classify the cases as autochtonic. An epizootological study and serological screening of canine populations in the epidemic foci were performed. In one patient, the visceral leishmaniasis was manifested on the background of a good general condition without history of past or accompanying diseases. In the other patient, the disease was manifested after operation of a benign mediastinal growth and ended lethally.

**DESCRIPTION OF CLINICAL CASES**

**Case 1**

D. G. D. was a 50-years old man from Yambol. The complaints began from the beginning of February – intermittent fever paroxysms up to 38.8°C, profuse sweating, weight reduction up to 10 kg, asthenoadynamia, anorexia. An axillary bilateral lymphadenitis, enlarged spleen by 6 cm and liver by 4 cm were seen. The haematological deviations were erythropenia, lymphopenia and increased erythrocyte sedimentation rate. After a prolonged diagnostic investigation and sternal puncture (performed in April), intra- and extracellularly located amastigote forms of *Leishmania infantum* were found on Romanovski/Giemsa-stained smear. The serological study yielded a borderline result. The aetiological treatment consisted in Glucantime administration (20 mg/kg, i.m) \[12, 10, 13\]. The temperature returned to the normal range (about the 10th day), the spleen and liver regained their normal sizes, the general condition improved, the haematological parameters returned to normal. The patient owned a dog that died by the end of 2002. In the region the men lived in (The Tundja riverside) where there were populations of stray dogs.

**Case 2**

G. S. K. was aged 67 and from Kaloyanovets. He began to complain since September 2004 of the following: pressure in the chest, suffocation, general weakness and discomfort, subfebrile episodes to 37.5°C. Thoracic radiography showed a mediastinal tumour formation of about 15 cm. In October, it was removed and was histopathologically determined as lipoma. The general condition improved, the haematological parameters returned to normal. The patient owned a dog that died by the end of 2002. In the region the men lived in (The Tundja riverside) where there were populations of stray dogs.
formalin (leishmaniae could be found out up to 6 hours after the death occurred) and they were negative for leishmaniae [2].

A seroepidemiological screening was performed in the regions of diseased men – Yambol and Kaloyanovets on 10 healthy dogs. An indirect immunofluorescence was used [5, 6, 7]. The analysis gave negative results.

CONCLUSIONS

The visceral leishmaniasis, caused by *Leishmania infantum*, is a sporadically manifested parasitosis in Bulgaria.

The aetiological diagnosis could not be always made by immunological and morphological diagnostic approaches. The ex juxtaglutinous therapy had an aetiological effect on the disease and decreased the risk of lately performed diagnoses and the accompanying complications.

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