

Epidemiological and clinical characteristics of visceral leishmaniasis in Armenia

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Background

Visceral Leishmaniasis is a neglected tropical parasitic disease caused by an obligate intracellular protozoan of the genus *Leishmania*, transmitted by the bite of infected sand flies (*Phlebotomus* species). VL is re-emerging disease in Armenia. Our goal is to describe the most common epidemiological, clinical and laboratory characteristics of VL in patients hospitalized in "Nork" Republican hospital.

Methods and materials

We used the medical charts of patients with VL admitted to "Nork" hospital during the period July 2015- July 2017.

Results

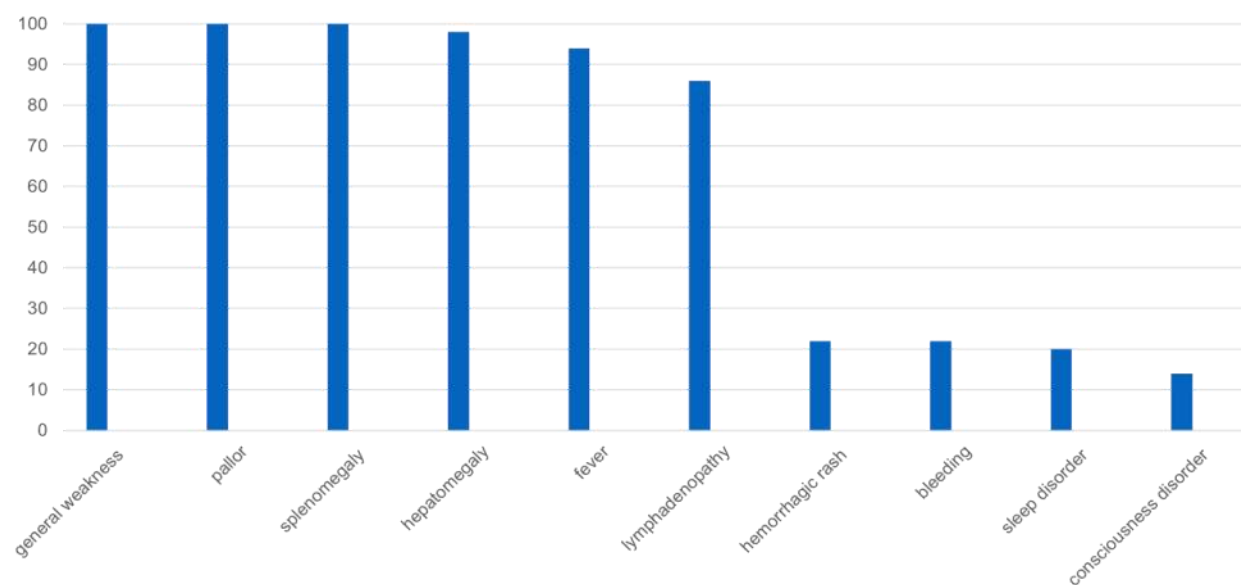
Total number of patients 50, 96% of them-children with a mean age of 2.05, male 62%. 70% of cases were local, in Yerevan 20%, Tavush 20%, Lori 10%, Syunik 16%, Kotayk 2%, Armavir 2%(Figure 1). 14 patients had accompanying illnesses, from which RSV 1, Cocksackievirus 1, leukemia 1, malnutrition 4 and pneumonia 7. The majority of patients (94%)recovered, 3(6 %)-died. Relaps-2 cases.

Figure 1. Geographical distribution of leishmaniasis in Armenia



Main clinical symptoms were general weakness (100%), pallor (100%), splenomegaly (100%), hepatomegaly (98%), fever (94%), lymphadenopathy (86%), hemorrhagic rash (22%), bleeding (22%), sleep disorder (20%), consciousness disorder (14%)(Figure 2). Laboratory data: Anemia 100%, Hb mean value 71.68(g/L), 92.3(g/L), leukopenia 70%, mean value 2.82(10⁹/L), 8.7(10⁹/L), thrombocytopenia 82%, mean value 74(10⁹/L), 276(10⁹/L) at the time of admission and discharge respectively .

Figure 2: Main clinical symptoms (%)



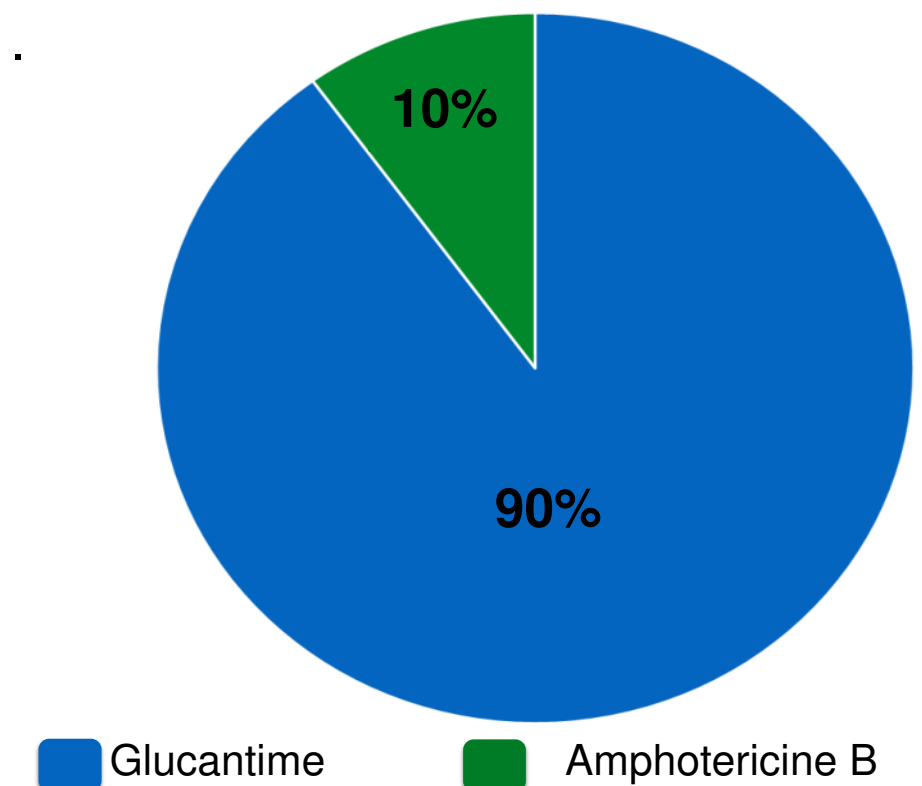
Diagnosis

Bone marrow puncture was used for all patients, positive 92%, rK39 rapid test 25, positive 24 (96%), PCR 9, positive 8(88.8%), IFA 41, positive 36(87%).

bone marrow puncture		rK39 rapid test		PCR		IFA	
positive	negative	positive	negative	positive	negative	positive	negative
92%	8%	96%	4%	88,8%	11,2%	87%	13%

Treatment:

Glucantime received 90% of patients, Amphotericine B 10%.



The mean duration of hospitalization - 29.1 days

Conclusion:

The slowest recovered hemoglobin level of the laboratory data, the basis for additional research to detect nutritional deficits (iron, folic acid, vitamin B12).

All children with anemia, splenomegaly, pallor, general weakness (+/-fever) should be examined for VL in endemic areas. In the presence of typical symptoms, 1or 2 negative laboratory tests-not enough to exclude the disease.