VISCERAL LEISHMANIASIS IN GREECE: UNDER-REPORTED OR UNDER-ESTIMATED?

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Background

Visceral leishmaniasis (VL) has been characterized a neglected tropical disease, endemic in over 98 countries worldwide. Greece is considered an endemic country, in nearly all geographical areas, with visceral leishmaniasis being the predominant form. *L.infantum* is the species responsible for the disease while the vectors transferring the parasite are Phlebotomine sandflies (*P.neglectus*, *P.tobbi*, *P.perfiliewi*). Dogs are considered the main reservoir hosts and humans are basically accidental hosts. Various studies have shown high proportions of seropositivity in dogs in various areas of the country (20-24%).

Leishmaniasis is a mandatory notifiable disease in Greece. During the years 2004-2014, 606 new cases of VL were reported. The annual incidence of VL ranged from 0,27-0,78 new cases per 100.000 population (median annual incidence 0,51). Lakonia is a Regional Unit in Peloponnesse, South Greece with a population of 89.138 residents. The annual incidence of VL in the area is estimated between 0,71-1,00 per 100.000 population.

In the following map of Greece, Lakonia prefecture pointed by the arrow, is considered endemic for VL (HCDGP data 2004-2014).

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Case Presentation Summary

During 2017, we report **four** new cases of VL diagnosed in the General Hospital of Lakonia- Nursing Unit of Sparta. The three new cases were children aged 3, 5 and 8 years old respectively. The fourth case was a 42-year-old male. The appearance of the cases is shown in the image below. All four cases presented with fever, hepatosplenomegaly, pancytopenia and positive rK39 antigen. The diagnosis was sealed by demonstration of the parasites in bone marrow sample. The laboratory findings of each case are demonstrated in the following table.

All four patients were treated with liposomal amphotericin B with excellent response and no relapses. The three children were reassessed within one month after release and their laboratory exams were normal.

Cases	WBC	Hb	Plt	CRP	Protein/Albumin
Female, 3years old	3.900K/ μ L	8,7g/dl	143.000K/ μ L	3,28mg/dl	-
Male, 5years old	2.200K/ μ L	6,6 g/dL	93.000K/ μ L	12,50mg/dl	7,0/2,8g/dL
Male, 8years old	2.500K/ μ L	7,0g/dL	62.000K/ μ L	13,99mg/dl	8,2/3,2g/dL
Male, 42years old	3.300K/ μ L	10,0g/dL	106.000K/ μ L	10,67mg/dL	-

Learning Points/Discussion

During 2017, VL incidence in Lakonia was **4,487 per 100.000** population, **4-6 times increased** comparing to the reported data in the region and 5-16 times comparing to the country's annual incidence. So, is that an **actual increase** in the incidence of VL in Lakonia or the country's **recording system needs re-evaluation?**