## G10 Visceral Leishmaniasis in Turkey: Sociocultural Issues in Forensic Epidemiology

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After attending this presentation, attendees will appreciate how socio- cultural and epidemiological issues are integrated into forensic sciences.

This presentation will impact the forensic community by demonstrating how a forensic scientist can participate in enlightening socio-cultural problems encountered by a developing nation.

Forensic epidemiology has been an emerging forensic science disci- pline dealing with diseases that create legal issues. Recognition of any parasitic infections requires an understanding of factors such as clinical symptoms and anamnesis, migration, and geography of the human settle- ment. Among the parasitic diseases, Visceral Leishmaniasis (VL) is one of the most difficult agents to identify and control and in turn is an important disease for the population as a whole. Therefore to control its effect on people, among the initial steps is to track the course of the disease and to plan the therapy. Furthermore, elapsed time during the diagnosis of the illness should be limited to a minimum. Because when the diagnosis is delayed the treatment may take longer. This situation may kick back as a serious problem about the illness of the patient and the application of the treatment. In the meantime, problems encountered during treatment such as difficulties in diagnosing psychosocial disorders and inability to identify the problems in every health center, must be solved.

The purpose of this presentation is an epidemiological assessment of VL encountered by patients during the course of the illness and its sociocultural impact on their lives.

The study includes nineteen patients (with a range of 1-17 years with a mean of 7.5 years) who were initially diagnosed as suffering from VL. From each patient, blood samples (5 ml), bone marrow and a personal health history (anamnesis) were obtained. The blood and marrow samples were analyzed using standard diagnostic tests designed for VL.

Results of the diagnositic tests indicated that eleven (7 males, 4 females) of the nineteen patients showed VL. Of these affected people, six were from Istanbul, two from Kastamonu and the remaining from the cities of Kütahya, Izmit and Hatay. Migration (change of residence) history was not known for six (2 male and 4 female) patients. History was known for five (4 males and 1 female) patients who moved to a different town. However, before moving to a different town, children were first taken to a local hospital for diagnosis. This visitation may have taken anywhere from 1.5 to 8 months. Some parents were not content with the results and did not get the help they needed. Eventually, these families moved their residence to a place (with a distance of 100 to 1,000 km from hometown) where they thought there were better treatment facilities (state or university hospitals). In two cases families changed their residence three times; one from Kütahya, Afyon and then to Istanbul and the other from Bursa, Canakkale, and back to Istanbul). Parents of three (affected by malaria, leptospirosis) of the remaining eight children also moved their household to Istanbul where there are better healthcare facilities. However, the decision to change residence from the eastern and southeastern towns to Istanbul is a commonly seen migration pattern in the country. Otherwise, almost all hospitals are well equipped to cope with malaria and leptospirosis.

With the improvement in socioeconomic level and income, it has become easy to change residence to far away places in Turkey. Yet such migration has also made the transmission of disease agents relatively simple. The study shows that VL is sporadically present in many parts of country. There is no clear evidence of the transmission of this blood parasite from a host to a person. In one case in Istanbul the host was thought to be a wild street dog living in a relatively poor residential area. The study indicates that the disease is haphazardly handled primarily due to a lack of medical proce- dure and guidelines to follow in dealing an infectious disease. Some parents of such victims seem to have spent their life's earnings to search for a rem- edy for their children by moving from one town to another in search of a better hospital or treatment center. In conclusion, it should be stated that in- fectious diseases are extremely serious and must be handled by a state med- ical procedure. As an important aspect of forensic epidemiology, such information must be communicated to all medical centers in and around the country. This procedure in dealing with an infectious disease is also impor- tant for doctors to avoid potential legal issues arising from wrong diagnoses and causing hardship for the patient and family.

**Forensic Epidemiology, Medical Guidelines, Visceral Leishmaniasis**

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