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Abstract

Epidemiological, clinical and laboratory aspects of epidemic caused by Trichinella britovi in western Serbia

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Abstract:

Objectives: The presence of Trichinella britovi in Serbia has been documented among animals only. This paper presents the large trichinellosis outbreak due to infected, uninspected wild boar meat consumption. It took place in the western part of Serbia, Zlatibor District, during the winter 2015-2016. Molecular Trichinella species identification enabled the first T. britovi outbreak recognition in Serbia.

Patients and methods: In the second half of January 2016, the Department of Infectious Diseases in Uzice examined 111 persons with clinical and laboratory signs of trichinellosis out of whom 19 patients were hospitalized. Trichinella species identification was performed by multiplex PCR. Sero-diagnosis was done by immunofluorescence antibody assay, indirect ELISA and Western Blot as confirmatory test.

Results: Patients mayor symptoms included: myalgia (83%), weakness (82%), pain in joints (80%), fever (77%), facial edema (74%), and diarrhea (23%). Eosinophil levels of > 500/ µl were found in 98% of patients, with a maximum value of 37200/ µl detected in two patients. Elevated levels of CPK were detected in 71%, LDH in 75% of patients. Two patients had cardiac complications: myocarditis, heart attack. The patients were treated with mebendasole, nonsteroid anti-inflammatory drugs and corticosteroids. The presence of anti-Trichinella antibodies was found in 86 (89,7 %) out of total 96 patients who provided a blood sample during the two months from the disease onset, including those hospitaly treated in whom 100% of sera positivity was detected one year later.

Conclusions: This outbreak indicated serious failures in education of all participants, from the hunters to consumers. The increase of awareness and knowledge of trichinellosis provoked by game meat and how to prevent it should be introduced. Also, this is to emphasize the importance of Trichinella species detection in aim of correct outbreak recording. When trichinellosis is suspected according to clinical signs and food exposure history, specific antibody detection could help timely diagnosis and treatment.

Biography:

Sladjana Pavic has been a specialist in infectious and tropical diseases and a master's degree in immunology since 2001. She has been employed at the Department of Infectious and Tropical Diseases of Uzice General Hospital since 1995, and since 2009 has been the department head. It is the only infectious disease treatment unit in the county with over 300,000 residents. During her many years of work, she has gained extensive experience in the diagnosis and treatment of patients with infectious diseases, as a ward doctor and as a consultant in other wards. Sladjana Pavic is Chairman of the Ethics Committee of the Uzice Health Center, President of the Commission for Intrahospital Infections of Uzice General Hospital, Member of the Medicines Commission of Uzice General Hospital and member of the Uzice Health Center Council. She has participated in many domestic and international professional gatherings.

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