

***Trichinella spiralis* and *Trichinella britovi*: preliminary analysis of muscle larvae crude extract by two-dimensional gel electrophoresis**

Justyna Bień, Anu Näreaho and Katarzyna Goździk

Witold Stefański Institute of Parasitology, Polish Academy of Sciences, Warsaw, Poland

Trichinella spiralis and *Trichinella britovi* are intracellular parasites which spend their larval and adult life in the same host and both the muscle larvae and the adult parasite occur as intracellular stages. The L1 larvae live in a modified skeletal muscle.

Trichinella nematodes, exhibiting different epidemiological features currently occur in Europe and four species of the genus *Trichinella* have been identified: *T. spiralis*, *T. britovi*, *T. nativa* and *T. pseudospiralis*. Until now, two of them, *T. spiralis* and *T. britovi*, have been found in Poland.

The aim of our study was to describe the differences between crude extracts of muscle L1 larvae of two encapsulated species *T. spiralis* and *T. britovi* by two-dimensional electrophoresis (2DE).

In silver-stained gels, the protein patterns of *T. spiralis* and *T. britovi* were clearly different. The differences were most evident in the low-molecular weight area, where the protein spots were distinct.

Additionally, these separated proteins were tested in Western-Blot with sera from experimentally *Trichinella* infected pigs. Immunoreactive spots were detected using rabbit anti-pig IgG conjugated with horseradish peroxidase.

Our results clearly demonstrated differences between *T. spiralis* and *T. britovi* and confirmed the usefulness of a combination of two-dimensional electrophoresis and immunoblotting for detailed analysis of antigenic properties of proteins of these two nematode species .