

## New challenges in trichinellosis control

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The Polish Parasitological Society and Witold Stefański Institute of Parasitology of the Polish Academy of Sciences organize a conference entitled: Trichinellosis in human and animals — new challenge. The Organizing Committee has invited Polish scientists, parasitologists, and veterinarians to give lectures concerning the main topics on trichinellosis especially in Poland. It is also important to remind here the role of former Polish scientists, vets and physicians in creating the International Commission on Trichinellosis and organizing the first International Conference on Trichinellosis in Warsaw in 1960.

Trichinellosis is still a concern for Europe and as it can be a serious disease, particularly in elderly patients in whom neurological or cardiovascular complications can lead to death as particularly shown by a lot of contributions from Polish physicians [1]. The usual pattern of transmission by pork is not so important as it used to be. In the past 30 years, horsemeat has been identified as the main source of human trichinellosis in the EU with more than 3350 cases reported in 14 outbreaks [2, 3]. However, the classical porcine vehicle remains. Small outbreaks due to wild boar meat are still reported in hunters and their families in France, Spain, Poland [2]. Outbreaks due to infected pork have been reported in Spain and Germany and are still reported in Latvia and Lithuania [2]. Until recently, *Trichinella* was considered to be absent from the Mediterranean islands but ten infected pigs were found in Corsica in 2004 and small outbreaks of pork-related trichinellosis involved patients in Sardinia in 2005. Infected foxes have also been found in Ireland, although this country was considered to be *Trichinella* free [2]. These observations are good examples illustra-

ting the difficulty to declare that some countries or areas are "*Trichinella* free". Pork-related trichinellosis is frequently reported in the potential future European Union states of Serbia, Croatia, Romania and Bulgaria where the disease has re-emerged in recent years [4]. Therefore, suitable and sensitive methods to detect parasitised animals are of crucial importance. Interestingly, a recent report by Webster et al [5] showed that meat inspection methods used for porcine species may differ in the various countries of the EU and the authors conclude that the classical trichinoscopy method could not be longer recommended, as it has a low sensitivity and usually fails to detect non encapsulated species such as *T. pseudospiralis*. Trichinoscopy should be replaced in every country by the magnetic stirrer digestion method. In addition, the reliable use of sensitive methods requires adequate training, proficiency testing and performance in a recognised quality assurance system. However, these preventive measures cannot prevent the occurrence of trichinellosis from imported meat inspected in countries not belonging to the European Union and the risk still exists, as demonstrated by the occurrence of seven cases due to horse meat consumption reported in October 2005 in the north of Italy (E. Pozio, personal communication). Travel is also a driver for some cases acquired in highly endemic regions (for example, Romania, the former Yugoslavia, Laos and Argentina) and others are due to persons returning from these countries and bringing back traditionally prepared sausages and delicatessen for consumption by their families and relatives. Such cases have been described in France, the United Kingdom, Denmark, Germany, Spain, Italy [6]. Recently, eight hunters contracted trichinellosis in Quebec, Canada with infected black

bear meat; two of them brought this meat back to France, where it was the source of infection for nine additional persons. Travellers should be informed of the risks of illegal importations of such meat products.

Trichinellosis is a concern for public health authorities in Europe and efforts have been made to promote and fund European networks such as Trichiporse, TrichiNet and Trichi-Med. Key scientists in this field have been identified and meet or communicate regularly to improve the management and prevention of this potentially lethal disease. Training the technicians in charge of meat control, and education of the consumers (to cook potentially infected meat thoroughly) are also key preventive measures. Therefore, scientific meetings on *Trichinella* and trichinellosis are of great importance to discuss all these issues.

## References

- [1] Kocięcka W. 2000. Trichinellosis: human disease, diagnosis and treatment. *Veterinary Parasitology* 93: 365–383.
- [2] Dupouy-Camet J. 2006. Trichinellosis: still a concern for Europe. *Euro Surveill* 11: 5–15.
- [3] Boireau P., Vallee I., Roman T., Perret C., Mingyuan L., Gamble H.R., Gajadhar A. 2000. *Trichinella* in horses: a low frequency infection with high human risk. *Veterinary Parasitology*: 93: 309–320.
- [4] Cuperlovic K., Djordjevic M., Pavlovic S. 2005. Re-emergence of trichinellosis in south-eastern Europe due to political and economic changes. *Veterinary Parasitology* 132: 159–166.
- [5] Webster P., Maddox-Hyttel C., Nöckler K., Malakauskas A., van der Giessen J., Pozio E., Boireau P., Kappel C.M.O. 2006. Meat inspection for *Trichinella* in pork, horsemeat and game within the EU: available technology and its present implementation. *Euro Surveill* 11: 50–65.
- [6] Pozio E., Marucci G. 2003. *Trichinella*-infected pork products: a dangerous gift. *Trends in Parasitology* 19: 338.