

## Short notes

## Prevalence of hydatidosis in pigs in the Lublin province (Poland) in the years 2005–2008

Jolanta Kozłowska-Łój<sup>1</sup>, Katarzyna Bartosik<sup>1</sup>, Agnieszka Łój-Maczulka<sup>2</sup>

<sup>1</sup>Chair and Department of Biology and Parasitology, Medical University, 11 Radziwiłłowska Street, 20-080 Lublin, Poland

<sup>2</sup>Conservative Dentistry Department of Medical University of Lublin

Corresponding author: Jolanta Kozłowska-Łój; E-mail: jolanta.kozlowska@umlub.pl

**ABSTRACT.** In the years 2005–2008 hydatidosis caused by *Echinococcus granulosus* was detected in 163 607 (10.37%) out of 1 577 370 pigs slaughtered in the Lublin province. Similar prevalence (10.39%) was found in the years 2001–2004.

**Key words:** *Echinococcus granulosus*, prevalence, pigs, Poland

### Introduction

Hydatidosis is caused by the larvae of *Echinococcus granulosus*, which is a cosmopolitan parasite. In pigs, this parasite causes great economic losses to the national economy. Due to the post-slaughter losses connected with disqualification of organs or their partial usefulness for consumption, it constitutes quite a serious problem in meat processing. For many years, because of the great epidemiological danger, hydatidosis has been raising interest of veterinary physicians, parasitologists and medical physicians [1–6]. The highest risk of hydatidosis persists in the Lublin

province, north-eastern Poland (in the Białystok and Olsztyn regions), and the Wielkopolska province [7–9].

The aim of this publication is continuation of studies concerning hydatidosis prevalence in the Lublin province.

### Material and methods

The study material included annual reports on the official examination of slaughter pigs obtained from the Veterinary Inspectorate in Lublin. Moreover, veterinary physicians from the Veterinary Health Inspection of meat plants who

Table. 1. Prevalence of hydatidosis in pigs in the Lublin province in the years 2005–2008

Years	Number of examined pigs	Prevalence/number of infected pigs
2005	839 886	(6.99%)/58 744
2006	293 197	(18.01%)/52 808
2007	268 225	(13.77%)/36 936
2008	176 062	(8.58%)/15 119
Total	1 577 370	(10.37%)/163 607

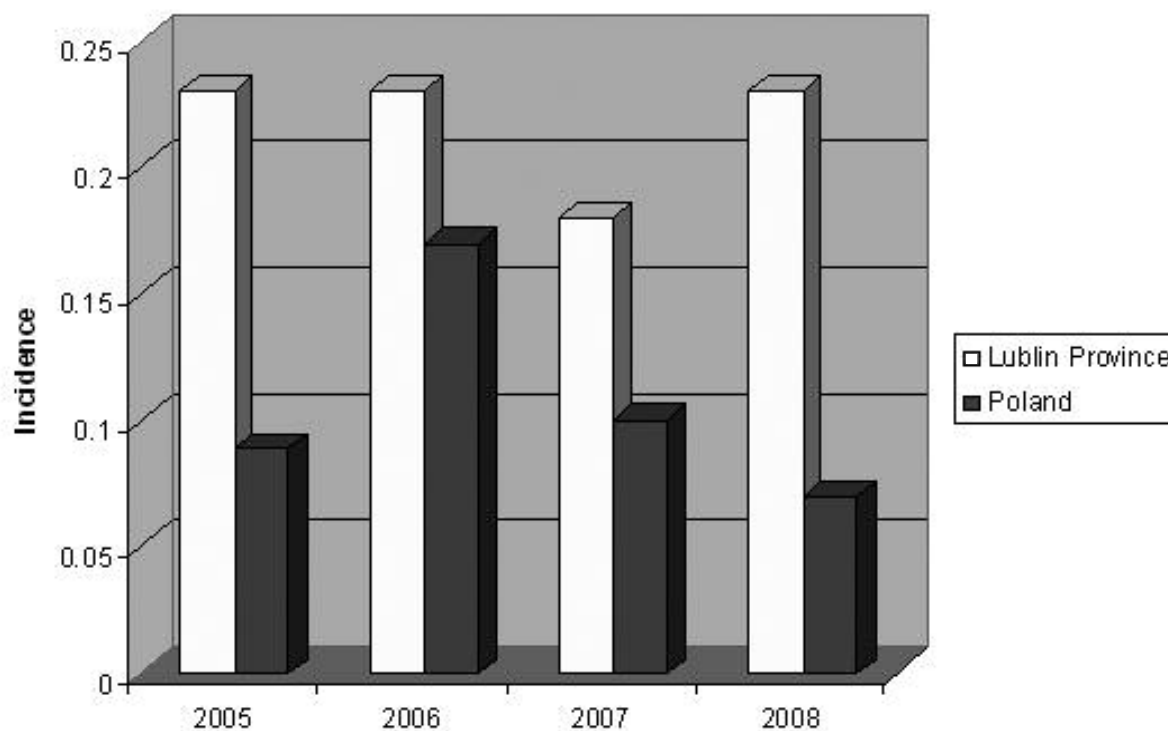


Fig. 1. The prevalence of echinococcosis among humans in the Lublin province in years 2005–2008

examined the carcasses of slaughtered pigs were consulted.

## Results

In the years 2005–2008, the prevalence of hydatidosis in slaughtered pigs in the Lublin province amounted, on average, to 10.37% (Table 1). Kozłowska et al. [7] demonstrated similar prevalence in the Lublin province (10.39%) in the years 2001–2004.

In Poland, the prevalence of hydatidosis in pigs amounted to 5% in the period 1994–1997, whereas in the Lublin province and north-eastern Poland during the same period of time it exceeded 10% in slaughter pigs [1,10].

It should be stressed that veterinarians employed at the Veterinary Sanitation Inspection of meat parts who examine slaughtered carcasses do not differentiate between *Echinococcus granulosus* and *Cysticercus tenuicollis* infection.

The prevalence of *E. granulosus* echinococcosis among humans in the Lublin province in the study years was higher than the national average and exhibited a growing tendency in subsequent years (Fig. 1) [11–14].

## References

- [1] Deryło A., Szilman P. 1996. Bąblowica i wągryca mięśniowa u bydła, trzody chlewnej, dzików w Polsce w latach 1994–1995. In: Abstracts of conference: „Choroby zakaźne i inwazyjne przewodu pokarmowego ludzi i zwierząt” Kazimierz Dolny, 24–26.X.1996: 286-289.
- [2] Deryło A., Kozłowska-Łój J., Szilman P., Najda N., Seniuk A., Wasilewski K. 2000. Częstość występowania bąblowicy u trzody chlewnej na terenie woj. lubelskiego w latach 1993–2000. *Wiadomości Parazytologiczne* 47: 779-781.
- [3] Kozakiewicz B. 1997. Bąblowica u zwierząt w Polsce. In: Materials of conference „Bąblowica – Echinokokoza”, Poznań, 30 March 1996.
- [4] Stefaniak J. 2000. Konferencja n. t. bąblowicy wywołanej przez *Echinococcus multilocularis*. *Wiadomości Parazytologiczne* 46: 517-520.
- [5] Zajkowska J.M., Pancewicz S., Al-Azazi K., Kondrusik M., Grygorczuk S., Hermanowska-Szpakowicz T. 2002. Bąblowica w północno-wschodniej Polsce – wybrane aspekty epidemiologiczne, diagnostyczne i kliniczne. *Polski Merkuriusz Lekarski* 13: 321-325.
- [6] Zworowska K. 2000. Epidemiologia, chorobotwórczość i diagnostyka echinokokozy. *Postępy Higieny i Medycyny Doświadczalnej* 54: 487-494.
- [7] Kozłowska-Łój J., Rzymowska J. 2007. Prevalence of hydatidosis in pigs in the Lublin province in the period 2001–2004. *Wiadomości Parazytologiczne* 53: 47-48.

- [8] Lis H. 1997. Ocena wyników badania sanitarno-weterynaryjnego świń rzeźnych w Polsce w 1994 r. *Medycyna Weterynaryjna* 54: 417-420.
- [9] Pawłowski Z.S., Stefaniak J. 2003. Bąblowica wywołana przez *Echinococcus granulosus* w Wielkopolsce w latach 1990–2000. *Przegląd Epidemiologiczny* 57: 579-586.
- [10] Deryło A., Szilman P. 1999. Występowanie bąblowicy u trzody chlewnej w Polsce w latach 1994–1997. *Wiadomości Parazytologiczne* 45: 235-240.
- [11] Czarkowski M.P., Cielebąk E., Dacka P., Kondej B. 2006. Infectious diseases and poisonings in Poland in 2005. *Epidemiological Reports 2006*. National Institute of Public Health-National Institute of Hygiene, Dept. of Epidemiology: 93.
- [12] Czarkowski M.P., Cielebąk E., Dacka P., Kondej B. 2006. *Epidemiological Reports 2007*. National Institute of Public Health-National Institute of Hygiene, Dept. of Epidemiology: 97.
- [13] Czarkowski M.P., Cielebąk E., Dacka P., Kondej B. 2008. Infectious diseases and poisonings in Poland in 2007. *Epidemiological Reports 2008*. National Institute of Public Health-National Institute of Hygiene, Dept. of Epidemiology: 99.
- [14] Czarkowski M.P., Cielebąk E., Kondej B., Staszewska E. 2009. Infectious diseases and poisonings in Poland in 2008. *Epidemiological Reports 2009*. National Institute of Public Health-National Institute of Hygiene, Dept. of Epidemiology: 98.

*Received 19 September 2011*

*Accepted 20 October 2011*