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TETANUS IN POLAND IN 2012

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ABSTRACT

Despite of the small number of cases reported in Poland tetanus is a permanent risk to unvaccinated people. The severity of the disease is associated with high case fatality, especially among people in older age groups.

THE PURPOSE OF THE STUDY. The aim of this paper is to present the data of epidemiological surveillance of tetanus in 2012.

MATERIAL AND METHODS. Principal source of the data is bulletin: "Infectious diseases and poisonings in Poland in 2012, and individual reports of cases of tetanus sent to the Department of Epidemiology, NIPH -NIH. **RESULTS.** In 2012, there were reported 19 cases of tetanus. 6 cases occurred in men, and 13 women. 13 cases occurred in persons over 69 years of age and in those age groups 6 cases were fatal. The paper describes the geographical distribution and the month of infection, the nature of the wounds which were portals of infection and the duration of incubation period of the cases.

SUMMARY AND CONCLUSIONS. Severity of tetanus, despite a small number of cases each year leads to several deaths, which could be prevented by vaccination.

Key words: tetanus, surveillance. Poland, 2012

INTRODUCTION

For several decades, the epidemiological situation of tetanus in Poland is not markedly changed. Every year, there are reported several cases, and the differences in incidence between the years are most likely random. Infections occur in adults, who were not covered by the mandatory immunization program. In most cases, vaccination status of people with tetanus remains unknown. Few deaths from tetanus occur mostly in people from older age groups.

THE PURPOSE OF THE STUDY

The aim of this paper is to present the data of epidemiological surveillance of tetanus in 2012, and to provide recommendations for prevention of tetanus.

MATERIAL AND METHODS

Material used in this study originates from the forms of individual notifications of cases of tetanus are sent to

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the Department of Epidemiology, NIPH-NIH and from the newsletters "Infectious diseases and poisonings in Poland in 2012" and "Vaccinations in Poland". The paper presents a tabular presentation of incidence and causality due to tetanus including time and geographical distribution of disease, age groups, and gender of patients.

RESULTS

In 2012, there were reported 19 cases of tetanus in nine provinces (Tab. I). Compared to 2011 it was an increase of five cases. The highest number of cases (5 cases) were reported in the Malopolska province and in the region of Silesia (4 cases). Incidence per 100 000 for the whole country was 0.049 / 100,000 (Tab. I).

The age of all the patients was over 19. In the age group 20-69 the number of cases was 6 cases, and 13 cases were reported in the age of over 69. There have been six deaths among cases over f 69. It was reported 13 cases among women and 6 cases among men. The number of deaths among men was 1, and 5 among women (Tab. II).

T7 ' 1 1'		2011	2012		
Voivodeship	case	incidence	case	incidence	
Polska	14	0.036	19	0.049	
1. Dolnośląskie	3	0.103	1	0.034	
2. Kujawsko-Pomorskie	-	-	1	0.048	
3. Lubelskie	-	-	-	-	
4. Lubuskie	-	-	2	0.195	
5. Łódzkie	-	-	1	0.040	
6. Małopolskie	3	0.090	5	0.149	
7. Mazowieckie	3	0.057	2	0.038	
8. Opolskie	1	0.098	-	-	
9. Podkarpackie	-	-	-	-	
10. Podlaskie	-	-	1	0.083	
11. Pomorskie	1	0.044	2	0.087	
12. Śląskie	2	0.043	4	0.087	
13. Świętokrzyskie	-	-	-	-	
14. Warmińsko-Mazurskie	-	-	-	-	
15. Wielkopolskie	1	0.029	-	-	
16. Zachodniopomorskie	-	-	-	-	

Table I.Tetanus in Poland in 2011 - 2012. Number of cases
and incidence per 100 000 population by voivode-
ship

Unlike in many previous years there have been a greater number of cases in the cities (11) than in the rural areas (8) (Tab. III).

There has been weakly marked seasonality. From May to August the number of reported cases was 11, and 8 in the remaining months

As estimated by the reporting physicians incubation time ranged from 4 to more than 20 days. In 13 cases it was up to 14 days, in 4 cases over 14 days, and in two cases the incubation time was not specified.

The portals of infection in 7 cases were puncture wound, in three cases chafe, in another three incised wound, and also necrosis in three. In two cases the wound was plucked, and in one mashed.

Two patients stated that they received a booster dose of vaccine and in 17 cases no information about immunization was given. In three cases, tetanus toxoid was given after injury, and 15 did not receive any prophylaxis. In one case, there was no information about prevention.

Out of the reported 19 cases of tetanus 18 were diagnosed on the basis of clinical symptoms. Bacteriological

Table II. Tetanus in Poland in 2012. Number of cases, incidence per 100 000 and deaths by age and sex

Age range	Males				Females		Total			
	case	incidence	deaths	case	incidence	deaths	case	incidence	deaths	
0-19	-	-	-	-	-	-	-	-	-	
20-29	1	0.033	-	1	0.034		2	0.034	-	
30-39	-	-	-	-	-	-	-	-	-	
40-49	-	-	-	1	0.042		1	0.021	-	
50-59	-	-	-	-	-	-	-	-	-	
60-69	2	0.109	-	1	0.045		3	0.074	-	
70-79	2	0.210	1	6	0.401	2	8	0.326	3	
80 i >	1	0.234	-	4	0.405	3	5	0.353	3	
Total	6	0.032	1	13	0.065	5	19	0.049	6	

Table III. Tetanus in Poland in 2012. Number of cases and incidence per 100 000 by sex in urban and rural population and deaths by voivodeship

Voivodeship	Males		Females		City		Country		Deaths
	case	incidence	case	incidence	case	incidence	case	incidence	Deaths
Polska	6	0.032	13	0.065	11	0.047	8	0.053	6
1. Dolnośląskie	-	-	1	0.066	1	0.049	-	-	-
2. Kujawsko-Pomorskie	-	-	1	0.093	-	-	1	0.120	1
3. Lubelskie	-	-	-	-	-	-	-	-	-
4. Lubuskie	-	-	2	0.381	2	0.309	-	-	1
5. Łódzkie	1	0.083	-	-	1	0.062	-	-	1
6. Małopolskie	1	0.062	4	0.232	1	0.061	4	0.234	2
7. Mazowieckie	-	-	2	0.072	2	0.059	-	-	-
8. Opolskie	-	-	-	-	-	-	-	-	-
9. Podkarpackie	-	-	-	-	-	-	-	-	-
10. Podlaskie	-	-	1	0.163	-	-	1	0.210	-
11. Pomorskie	2	0.179	-	-	1	0.067	1	0.127	-
12. Śląskie	2	0.090	2	0.084	3	0.084	1	0.097	1
13. Świętokrzyskie	-	-	-	-	-	-	-	-	-
14. Warmińsko-Mazurskie	-	-	-	-	-	-	-	-	-
15. Wielkopolskie	-	-	-	-	-	-	-	-	-
16. Zachodniopomorskie	-	-	-	-	-	-	-	-	-

confirmation by the culture of *Clostridium tetani* was obtained in only one case. It concerned the fatal disease of 82 year old woman.

SUMMARY AND CONCLUSIONS

In the last several years in Poland cases of tetanus occurred mostly in adults, especially in the elderly, usually after the age of 60. These are the age groups not covered by the compulsory vaccination and having a very low percentage of people vaccinated within the recommended vaccinations program. In addition to selected groups of professional soldiers and employees of the fire departments vaccination coverage of adults in Poland remains low. The primary care physicians should encourage patients to be vaccinated at the recommended intervals of 10-years, particularly the people over 60 years of age, in whom course of tetanus can be particularly severe and can lead to death.

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