

# Trichinellosis evolution in Yassy district, in the period 1990-1997

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## Introduction

The main source of *Trichinella spiralis* for human infestation is originated from the consumption of pig meat. (1 - 9) In Romania trichinellosis has been detected since 1868 (1, 5, 8) at man and swine as well. The number of disease cases at man and the focuses of disease at pig have increased every year. In some districts infestation percentages are higher and in another districts they are smaller (7).

## Material and method

The taken data regarding : total slaughtered pigs, slaughtered pigs in the slaughter houses and slaughtered pigs in the private farms (P.F.) were introduced in the table. The infestation percentages were calculated for all the period and all the situations and then were analysed. In the table were introduced and data regarding the disease positive cases at man, for the same period.

## Results

During the period under study the total number of slaughtered pigs in Yassy district ranged about 222,000, excepting the years 1996 and 1997 when the number diminished.

The number of positive cases at the total number of slaughtered pigs is small (1 - 7), excepting the years 1993 and 1994 when 10 and respectively 17 pigs with trichinellosis were found. As a matter of fact, in other districts too (4 - 7), the number of infested pigs diagnosed in the years 1993 - 1997 is high.

The infestation percentages for the period under study are reduced, ranging between 0.0004 % (in 1990) and 0.0069% (in 1994). The greatest majority of the pigs were killed in slaughter

houses. The smallest number of pigs killed in slaughter houses was registered in 1997 (121,000) while the greatest number was registered in the years 1992 (248,962), 1993 (238,700) and 1994 (233,900). In the years 1990 and 1991 no trichinellosis in pigs slaughtered in slaughter houses was found. In the other years of the analysed period the number of pigs infested with trichinellosis, slaughtered in slaughter houses ranged between 1 and 3, excepting 1994, when 5 positive cases were found. From these five positive cases, 3 pigs come from Vaslui district.

A minimum of 12,707 pigs (1994) and a maximum of 25,140 pigs (1994) were annually slaughtered in private farms. At these pigs, 1 - 4 positive cases were annually found, excepting the years 1993 (8 cases) and 1994 (12 cases). In each of these two years, one pig with trichinellosis come from another district : Vaslui (1993) and Neamţ (1994). The infestation percentages calculated for the pigs slaughtered in private farms range between 0.0016 % (1991, 1992) and 0.0091 % (1997). During the years 1995, 1993 and 1994 the registered percentages were higher : 0.0175 %, 0.0303 % and 0.0944 %.

Positive cases of disease at man, diagnosed during the period under study, ranged between 12 and 400. In 1990, 1994 and 1993 there were the most positive cases at man : 267 cases, 360 cases and 400 cases. In 1995, 99 persons were diagnosed with trichinellosis, and in the other years the number of ill peoples decreased, ranging between 12 and 37. For the years 1994 - 1997 the distribution of the disease cases at man, depending on the place of living (countryside - town) shows a majority of disease cases in the town. So, in 1994 the rate is 237 (town) - 123 (countryside), in 1995: 75 (town) - 24 (countryside), in 1996: 15 (town) - 5 (countryside) and in 1997: 8 (town) - 4 (countryside).

Trichinellosis evolution in Yassy district

| Year | Total                |                |        | Slaughter houses     |                |        | Private Farms (P.F.) |                |        | Disease cases at man |
|------|----------------------|----------------|--------|----------------------|----------------|--------|----------------------|----------------|--------|----------------------|
|      | No. slaughtered pigs | Positive cases |        | No. slaughtered pigs | Positive cases |        | No. slaughtered pigs | Positive Cases |        |                      |
|      |                      | No.            | %      |                      | No.            | %      |                      | No.            | %      |                      |
| 1990 | 221,250              | 1              | 0.0004 | 196,420              | 0              | 0      | 24,830               | 1              | 0.0040 | 267                  |
| 1991 | 215,296              | 4              | 0.0018 | 190,156              | 0              | 0      | 25,140               | 4              | 0.0016 | 37                   |
| 1992 | 273,978              | 7              | 0.0025 | 248,962              | 3              | 0.0012 | 25,016               | 4              | 0.0016 | 117                  |
| 1993 | 265,018              | 10             | 0.0037 | 238,700              | 2              | 0.0008 | 26,318               | 8              | 0.0303 | 400                  |
| 1994 | 246,607              | 17             | 0.0069 | 233,900              | 5              | 0.0021 | 12,707               | 12             | 0.0944 | 360                  |
| 1995 | 221,123              | 6              | 0.0027 | 198,321              | 2              | 0.0010 | 22,802               | 4              | 0.0175 | 99                   |
| 1996 | 151,260              | 4              | 0.0026 | 132,020              | 3              | 0.0022 | 19,240               | 1              | 0.0051 | 20                   |
| 1997 | 142,772              | 3              | 0.0021 | 121,000              | 1              | 0.0008 | 21,772               | 2              | 0.0091 | 12                   |

## Discussions

From the analysis of the data it results that Yassy district is a district with low infestation percentages of the swine. Annually, positive cases are found at the pigs slaughtered in private farms. The number of positive cases is higher at the pigs slaughtered in private farms, as compared with those killed in slaughter houses. In the years 1990 and 1991 in the communal slaughter house from Yassy, and in the slaughter house from Tomești pigs coming from the ex-I.S.C.I.P. Tomești were slaughtered. No case of trichinellosis was found at the pigs coming from this swine raising unit. Later, the unit was closed and pigs could be legally slaughtered in many places from Yassy county and the village of the district.

The greatest number of the cases from years 1993 and 1994 was caused by non-hygienical raising of the swine, fed at the garbage pits of the localities. Later, this totally wrong tendency of raising the swine was stopped by the sanitary veterinary service. In district are many well-known focuses of trichinellosis, in the towns and in the villages.

The great number of positive cases diagnosed at man was noticed in the years 1993 and 1994, but, on the whole, in the district, many positive cases at man were registered. After 1996, the number of these cases decreased, due to the efforts made by the veterinary service to stop the commerce with the meat which was not analysed from sanitary-veterinary point of view, and fewer and fewer cases of disease were diagnosed at man.

## Conclusions

1. The infestation percentages with trichinellosis at the pigs slaughtered in Yassy district are small, especially at pigs killed in slaughter houses.

2. In the years 1993 and 1994 a significant increase of the pigs infested with *Trichinella spiralis* was registered, especially at the pigs slaughtered in private farms.
3. After 1994, the number of the positive pigs continuously decreased, both at pigs slaughtered in the slaughter houses and those killed in private farms.
4. The number of the persons who were taken ill with trichinellosis is very great, excepting the years 1991, 1996 and 1997.

## REZUMAT

### Evoluția trichinelozei în județul Iași, în perioada 1990-1997

În lucrare sunt analizate rezultatele examenului trichineloscopic, efectuat pe totalul porcilor sacrificați în județ, pe totalul porcilor sacrificați în abatoare și pe totalul porcilor sacrificați în gospodăriile populației. Au fost calculate procentajele de infestare pentru fiecare categorie luată în studiu și este prezentată și evoluția cazurilor pozitive depistate la om.

Studiul relevă faptul că județul Iași este un județ cu procente reduse de infestare a efectivelor de suine (0,0004 % - 0,0027 %). De asemenea în studiu se evidențiază procentele mai mari de infestare (0,0016 % - 0,0944 %) la porcii sacrificați în gospodăriile populației (G.P.). Studiul prezintă și evoluția cazurilor pozitive depistate la om, în perioada analizată. Se remarcă o reducere a numărului de cazuri de boală la om în anii 1996, 1997, după ce în anii 1993, 1994 s-au înregistrat multiple îmbolnăviri (400, 360).

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