Epidemiology of trichinellosis and echinococcosis in Hungary

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Incidence (case per 100,000 inhabitants) of trichinellosis in humans in Hungary

<table>
<thead>
<tr>
<th>Year</th>
<th>Autochthonous</th>
<th>Imported</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2007</td>
<td>0</td>
<td>0.02</td>
</tr>
<tr>
<td>2008</td>
<td>0.02*</td>
<td>0.03</td>
</tr>
<tr>
<td>2009</td>
<td>0.08**</td>
<td>0.01</td>
</tr>
</tbody>
</table>

* A family outbreak (source could not be identified).
** A backyard pig related family outbreak.

Prevalence of trichinellosis in domestic and wild animals

- **Domestic swine** (n = 16 million; 2006-2010): 0.000025%
  - Detected only in 4 backyard pigs related to a family outbreak in the southern region of Hungary in 2009
    - T. spiralis (100%)

- **Wild boar** (n = 0.22 million; 2006-2010): 0.0077%
  - Might be underestimated (compressorium method was used until 2009)
    - T. britovi (64.7%), T. spiralis (29.4%), T. pseudospiralis (5.9%)

- **Red fox** (n = 2116; 2007-2008): 1.8%
  - T. britovi (85.7%), T. spiralis (11.4%), T. pseudospiralis (2.9%)


Incidence (case per 100,000 inhabitants) of echinococcosis in humans in Hungary

<table>
<thead>
<tr>
<th>Year</th>
<th>Cystic echinococcosis</th>
<th>Alveolar echinococcosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>0.05</td>
<td>0.01*</td>
</tr>
<tr>
<td>2006</td>
<td>0.06</td>
<td>0</td>
</tr>
<tr>
<td>2007</td>
<td>0.08</td>
<td>0</td>
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<tr>
<td>2008</td>
<td>0.07</td>
<td>0</td>
</tr>
<tr>
<td>2009</td>
<td>0.08</td>
<td>0</td>
</tr>
</tbody>
</table>

* Most likely not autochthonous.

Distribution of Trichinella spp. in Hungary

- T. britovi-infected wild boars, filled circles; T. spiralis-infected wild boars, filled triangles; T. pseudospiralis-infected wild boars, filled square
- Domestic focus of T. spiralis-infected (n = 4) pigs, cross
- T. britovi-infected foxes, open circles; T. spiralis-infected foxes, open triangles; T. pseudospiralis-infected fox, open square


Echinococcus granulosus sensu lato in animals

- **Sheep and cattle**
  - Prevalence: 0.1% and 0.07%
  - Species: E. granulosus sensu stricto (G1, G1mv and G3; 94.1%)
    - E. canadensis (G6; 5.9%)

- **Swine**
  - Prevalence: 0.02% (only in backyard pigs)
    - Most likely overestimated (> 50% of the suspected echinococcosis cases are cysticercosis tenuicollis)
  - Species: E. canadensis (G7; 87.5%)
    - E. granulosus sensu stricto (G1+G3; 12.5%)

Distribution of *Echinococcus multilocularis* infected red foxes (filled circles) and uninfected red foxes (open circles)

Prevalence (NW): 16.2 (14.5-17.9) %

Prevalence (SE): 4.2 (3.2-5.2) %


Thank you for your attention.