Study on Infectivity of *Toxocara canis* Eggs from Soil

Hong-Ki Min, M.D.

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Eleven percent of 128 soil samples examined in Seoul area for *Toxocara canis* eggs were positive. In experimental observation, 34 larvae were collected from 10 mice which have been infected with total 110 infective stage eggs obtained from soil samples and cultured in the laboratory room. Another group of mice was infected with larvae from mice and examined for re-infectivity test, and some larvae were detected in the liver tissue on the 2nd day after infection.

By histological examination, an eosinophilic abscess was observed in the center of a typical granuloma in the liver on the 21st day after infection. It suggests that the larvae transmitted from another paratenic host is more pathogenic.

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By histological examination, an eosinophilic abscess was observed in the center of a typical granuloma in the liver on the 21st day after infection. It suggests that the larvae transmitted from another paratenic host is more pathogenic.
Table 2. Number of larvae recovered from mice infected with T. canis eggs which were obtained from soil samples

<table>
<thead>
<tr>
<th>No. of mice</th>
<th>No. of eggs administered</th>
<th>Age of infection</th>
<th>Total No. of larvae (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Total 110 (10~12 each)</td>
<td>2 days</td>
<td>34 (30.9)</td>
</tr>
</tbody>
</table>

Fig. 1. A larva detected in the liver tissue of mouse infected with larvae from another mouse.

Table 1. Isolation of Toxocara canis eggs from soil samples by locality

<table>
<thead>
<tr>
<th>Locality</th>
<th>No. of sample</th>
<th>No. of positive</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shinrim-Dong</td>
<td>31</td>
<td>4</td>
<td>(12.9)</td>
</tr>
<tr>
<td>Mock-Dong</td>
<td>26</td>
<td>3</td>
<td>(11.5)</td>
</tr>
<tr>
<td>Yuckchon-Dong</td>
<td>19</td>
<td>2</td>
<td>(10.5)</td>
</tr>
<tr>
<td>Sanggye-Dong</td>
<td>14</td>
<td>1</td>
<td>(7.1)</td>
</tr>
<tr>
<td>Imoon-Dong</td>
<td>16</td>
<td>1</td>
<td>(6.3)</td>
</tr>
<tr>
<td>Hwayang-Dong</td>
<td>22</td>
<td>3</td>
<td>(13.6)</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td>14</td>
<td>(10.9)</td>
</tr>
</tbody>
</table>

Fig. 2. A typical granuloma in the liver of a mouse infected with larvae from another mouse; in center, an eosinophilic abscess can be observed on the 21st day after infection. H-E stain, X100
C. 실험학의 결과

収穫하여 오징어 10체의 肝臓과 組織標本에 就いて 觀察한 후 組織学의 規則에 適応한
而 感染의 起源은 以下의 原因으로 归納한。

考察

人體寄生虫症의 主要 原因은 人間의 非衛生의 處理
에 归於 感染型卵子나 幼虫으로 感染된 土壤 및 野菜의
摂取에 있다[23]는 周知の 事実이다。近年에 이르러
動物寄生蟲 組織標本에 適応한 人體感染例의
報告는 寄生虫学의 및 影響의 観察에 있어 매우 注目를
得하고 있다。

이와 同様의 家畜中 人間과 가장 密接한 生活を
営む하는 家畜는 以下の 種類의 組織標本에 感染されぬ
為に 组織標本は 生物学的に 彼等の 組織
を 閉択하여 人體に 侵害を 可能なもの[24]

内腸幼虫移行症의 原因寄生虫症은 以下の 種類的
鰯鰭類 및 黒鱸目類에 归于 幼虫으로 感染を受け
為にlinik學의 実施에 있어 매우 注目を
得하고 있다。

卵子와 土壤을 汚染시키는 家畜의 犬類寄生蟲症に 對
Corpo[27] 76.5% 및 美固 20~40%[28] 및 北欧 20.7%[29] 및
獲得 Chemi 25.3%[30] 및 韓國의 境遇 일본 및
都市 및 農村에서 37.2%의 平均 感染率를 報告하고 雑畜
이 많은 서울特別市的 周圍에 農村地域에 있거 보다
汚染を受けぬ 例이 많고 以下의[31] 30.9%를
検定하여 30.0%를

一方 大邱市 路上에서 收穫한 犬糞標本에 14.7%에
依て 犬類寄生蟲이 検出하였으며 82.0%에 依て 検出한
種類의 端蟲이 含有されて 以下의[32] 依て 報告
得られた。

土壤에서의 犬糞寄生蟲의 検出報報는 外國의 境遇 New
Orleans의 境遇에 依て 40%를 検出された
Headlee[33]의 報告에 適応할 수 없었다。

土壤에서의 検出報報는 端蟲 laughlini에 適応한
9.0%를 나타었다。

土壤에서의 検出報報는 端蟲 laughlini에 就いて
以下의 検出報報が 依て 検出된
立場を 取り得る。

土壤에서의 検出報報는 端蟲 laughlini에 就いて
以下의 検出報報が 依て 検出された
30.9%を 依て 小児寄生虫症에 归する

結論

現存하 간은 非衛生의 인과 土壤의 汚染状態에 归する
犬糞寄生蟲의 土壤 汚染状態를 調査하고 以下의 調査
報告書에 依て 小児寄生虫移行症 以下의 検出報報에 就
以下の 目的으로 大邱市의 以下의 検出報報에 依て
以下의 検出報報に 就いて 調査報告書를 前報

1) 以下의 検出報報に 依て 以下의 検出報報を 以下
6.3~13.6%の 検出報報を 得る。

2) 以下의 検出報報に 依て 以下의 検出報報を 以下
30.9%を 归する

3) 以下의 検出報報に 依て 以下의 検出報報を 以下
以下의 検出報報を 归する

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References


