**NTM LYMPHADENITIS IN CHILDREN – HELSINKI EXPERIENCE**

**Nontuberculous mycobacterial cervicofacial lymphadenitis in children after cessation of universal BCG vaccination program in 2006 in Helsinki-area**

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**Conclusions**

The standard treatment for NTM lymphadenitis has been either surgery or antibiotics, although it is shown that the infection ceases by itself over time. We analyzed the outcomes of our treatment protocol, surgery or observation only.

The use of blood-based laboratory testing decreased the need for invasive methods for diagnosis, and observation was a good option for surgery.

**Introduction**

In Finland, the BCG vaccination program changed from universal to selected approach in 2006. Following the change, the incidence of nontuberculous mycobacterial infections increased, as was expected.

**Clinical course**

In small children, the typical infection is lymphadenitis in the neck. First, a painless lump and a cold abscess develops. Within few weeks, the skin becomes thinner and bluish/reddish and a fistula develops. The necrotized lymph node drains for days to weeks, sometimes months. After healing, a light scar can be seen.

**Our patients**

<table>
<thead>
<tr>
<th>Sex</th>
<th>22 males, 34 females (56 total)</th>
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<tr>
<td>Age</td>
<td>3.1 years in average (1.0-7.1 years)</td>
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<tr>
<td>Ly-TbSpot</td>
<td>Measured from 50 patients (89%)</td>
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<tr>
<td>Surgery</td>
<td>23 (incision, excision, evacuation) (41%)</td>
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<tr>
<td>Observation</td>
<td>33 (59%)</td>
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<tr>
<td>Fistula</td>
<td>Often children did not develop fistula at all, or the drainage was only for days. In rare cases the intermittent drainage lasted for months.</td>
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**Treatment protocol – things to consider**

- One vs. multiple abscesses
- Size of the abscess – duration of the drainage
- Facial nerve
- Need for diagnostic specimen
- Parental preference

**Observation only is a good option for surgery.**

If NTM lymphadenitis is suspected clinically, a modified IGRA Elispot test (interferon gamma release assay) is performed. If test lymphocytes react to PPD (tuberculin), but not TB antigens, it is considered suggestive of NTM infection.

If there is only one big lymph node, and the facial nerve is not at risk, surgery can be considered. If surgery is not an option, or if the parents do not want it, observation without antibiotics is a good choice.