NOTES FROM THE MEETING ON

PLASMA FRACTIONATION

HELD IN GRONINGEN 1 – 2 NOVEMBER 1984

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1. **HTL VIII** (by Dr. Jason, CDC, p25 in abstract book)

There are now 55 AIDS cases in USA haemophiliacs, this includes one VW patient treated with cryoprecipitate only.

Forty-nine of these haemophiliacs have been tested for anti-HTLVIII and 43 were +ve.

Results of anti-LAV tests on various recipients of blood products were given:

<table>
<thead>
<tr>
<th>GROUP</th>
<th>N</th>
<th>% LAV +ve</th>
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</thead>
<tbody>
<tr>
<td>FVIII recipients (USA/Austria)</td>
<td>234</td>
<td>74</td>
</tr>
<tr>
<td>FIX</td>
<td>36</td>
<td>39</td>
</tr>
<tr>
<td>Thalassaemia</td>
<td>43</td>
<td>7</td>
</tr>
<tr>
<td>Non-transfused, medical patients</td>
<td>29</td>
<td>4</td>
</tr>
<tr>
<td>Non-transfused, lab staff</td>
<td>18</td>
<td>0</td>
</tr>
</tbody>
</table>

In Vienna the incidence of seroconversion is:

- FVIII recipients 62%
- FIX 50%

There is some correlation with dosage i.e.

**Severity of Haemophilia**

<table>
<thead>
<tr>
<th></th>
<th>% LAV +ve</th>
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<tbody>
<tr>
<td></td>
<td>FVIII</td>
</tr>
<tr>
<td>Mild</td>
<td>29</td>
</tr>
<tr>
<td>Moderate</td>
<td>63</td>
</tr>
<tr>
<td>Severe</td>
<td>78</td>
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</tbody>
</table>

Those who were anti-LAV +ve had the following characteristics.

- Lymphocyte count
  - Reduced
  - Reduced (but 2 populations for FIX recipients)
- Ts
  - No difference
- Th/Ts
  - Reduced (not sig. for FIX)
- IgG, IgA
  - Raised
- Immune complexes
  - Present for FVIII (but not for FIX)

Household contacts

of 17 AIDS cases only 2 household contacts found LAV +ve

Animal studies suggest that seroconversion may take place 3 months after receipt of virus.

**Heat inactivation studies** (probably by Cutter)

Starting level of virus $10^5$ particles/ml (LAV)
Conditions | Comment
---|---
68°C wet heating (German method) | Complete inactivation in 4 minutes.
68°C dry heating | $<10^1$ particle/ml after 1 hour, complete inactivation at 24 - 78 hr.

2. REMOVAL OF VIRUS INFECTIVITY (R. Gerety, O08, abstr p. 23)

NANB is a retrovirus.

May be cross-reactivity with HTLVIII in haemophiliacs. Every +ve HTLVIII test (ELISA) should be confirmed by another method (eg Western blot could be used because of NW differences).

Clinical trial of heat treated FVIII in virgin haemophiliacs (Mannucci) has shown NANB, but no sign of HTLVIII after 1 year (suggests that Hyland method, 60°C, 72 hrs, dry heat, will inactivate HTLVIII).

Fractionation of retroviruses:

<table>
<thead>
<tr>
<th>Distribution</th>
</tr>
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<tbody>
<tr>
<td>Reverse transcriptase (Rouse Sarcoma)</td>
</tr>
<tr>
<td>30% to Cryo</td>
</tr>
<tr>
<td>0 in FII</td>
</tr>
</tbody>
</table>

NOTE: The safety of FII was queried by Dr. Gunson in light of the BPL experience. Dr. Gerety said that he believed the BPL situation was due to cross-contamination of FII in the gel filtration column.