

NOTES FROM THE MEETING ON
PLASMA FRACTIONATION
HELD IN GRONINGEN 1 - 2 NOVEMBER 1984

PETER R. FOSTER

Scottish National Blood Transfusion Service
Protein Fractionation Centre
21 Ellen's Glen Road
EDINBURGH
EH17 7QT

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:-

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

In Vienna the incidence of seroconversion is:-

FVIII recipients	62%
FIX "	50%

There is some correlation with dosage i.e.

<u>Severity of Haemophilia</u>	<u>% LAV +ve</u>	
	<u>FVIII</u>	<u>FIX</u>
Mild	29	0
Moderate	63	70
Severe	78	83

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

Lymphocyte count	Reduced
Th cells	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)

ConditionsComment

68°C wet heating (German method)

Complete inactivation in 4 minutes.

68°C dry heating

<10¹ particle/ml after 1 hour, complete inactivation at 24 - 78 hr.2. REMOVAL OF VIRUS INFECTIVITY (R. Gerety, OOB, 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 MW 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:-

DistributionReverse transcriptase
(Rouse Sarcoma)30% to Cryo
0 in FII

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.