

NPLTG

Minutes from the Nordic Pediatric Liver Transplant Group (NPLTG) meeting Stockholm, October 23, 2014.

- The second NPLTG meeting** was arranged in Stockholm in association with the NLTG meeting, the Autumn meeting of the Swedish Transplantation Society and the Swedish Transplantation Jubilee. Due to afternoon lectures in Aula Medica, the time was limited.

After a short Welcome introduction we discussed future meetings.

At the first meeting in Oslo we agreed that the NPLTG-meeting should be arranged once yearly in fall, connected to the NLTG-meetings. Next meeting will be in Copenhagen, fall 2015.

- Center report since last meeting in Oslo.**

Copenhagen:	5 pediatric transplants
Gothenburg:	4 pediatric liver transplants and one multivisceral, one live donor transplantation.
Oslo:	2 pediatric liver transplants
Stockholm:	5 transplants
Helsinki:	not present.

- Discussion about routines at different centers:**

William Bennet had made a survey from the different Scandinavian Centers regarding procedures and protocols.

We discussed a proposal of putting forward common protocols regarding medications in order to make the Scandinavian pediatric liver cohort more uniformed and easier to compare in studies and publications. No decision was taken and this issue will be subject for further discussions at future meetings.

Prophylaxis

	Thrombosis (dose/duration)	Salicylic acid (dose/duration)	Antibiotic (dose/duration)	Antimycotic(dose/duration)
Oslo	Heparin 200IE/kg/day for 1 week + Macrodex 10ml/kg day 1, 3 & 5 + Atenativ 250IE bid if ATIII<80	3mg/kg x day from day 6 Fragmin 60IE/kg from day 7	Meropenem (20-30 mg/kg every 3rd h; 1 day)	No
Gothenburg	Fragmin (80U/kg) 4 weeks	POD 14 (35 mg)	(XX mg; XX days)	(XX mg; XX days)
Copenhagen	Prostacyclin/Heparin Until discharge	37,5 mg POD 3 months	Cefuroxime Ampicillin	Mycafungin (not routine)
Stockholm	Heparin 100U/kg/12h	35mg	Amicilline/Cefotaxine	no

Pediatric Induction Immunosuppression

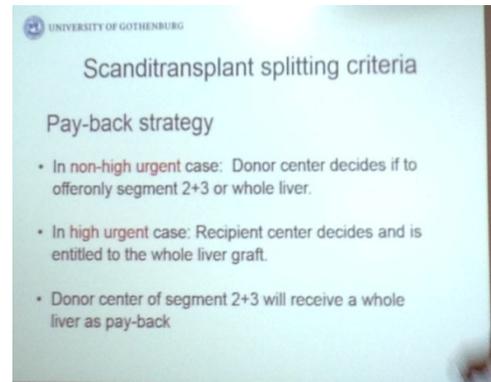
	IL-2 block	ATG/Thymo	Methyl-Pred	Other
Oslo	10 mg (day 0 & 4)	-	1+10+1 mg/kg	-
Gothenburg	10 or 20mg (d0+d4)	-	10 mg/kg	-
Copenhagen	-	-	15mg/kg	-
Stockholm	-	-	125 - 250 mg x 2	-

Pediatric Maintenance Immunosuppression

	Tac/Cyc (initial trough)	MMF	Steroids	Other
Oslo	Tac (5-15)	600 mg/m ² BID	1,5 mg/kg 4 days, 1 mg/kg from day 5 (tapering)	-
Gothenburg	Tac (8-10)	-	0 mg/kg	-
Copenhagen	Tac 8-12	-	-	-
Stockholm	8-16	no	Taper 10 -> 0	-

Rejection treatment

	ACR treatment	Steroid resistant ACR
Oslo	SM 10 + 5-15 mg/kg/day 3 days	Thymoglobulin 2,5 mg/kg (CD3 T-cell count)
Gothenburg	SoluMedrol 20mg/kg max 500mg x1, Predcortalone (2-3mg/kg iv) 3 days	Thymoglobulin (3-5 mg/kg iv) 5-7 days
Copenhagen	Methyl-pred 15 mg/kg 3-5 days	Thymoglobulin 2-3 mg/kg
Stockholm	250 – 500 iv X 1 Steroid Recycling	Thymo 1,5 mg/kg/d 3 – 14d



4. Diagnostic criteria PTLD

At the Oslo meeting we discussed PTLD and the difficulties in comparing data due to different centers having different parameters for defining the diagnosis. Antal Nemeth was given the task of putting together a suggestion for common guidelines in diagnosing PTLD and post transplant lymphoma.

He gave a nice overview over symptoms, risk factors and natural cores of the disease. He emphasized the importance of immunosuppression and specially individualization and minimization.

Major problems in comparing data from different centers regarding PTLD is:

Different classifications suggested by Nalesnik 1988; Knowles 1995; UCLA-criteria, (McDiarmid 1998) and WHO-classification (IARC Press, Lyon 2008).

Different sources for EBV diagnostics: whole blood, lymphocytes, plasma or serum.

Importance of diagnostics outside the transplanted organ, especially gastrointestinal manifestation of PTLD.

He proposed equal follow up of PTLD (se illustrations).

Suggestion for equal NPLTG f/u of PTLD	High-risk group
<ul style="list-style-type: none"> • High-risk group: primary/reactivated EBV at Tx (based on donor+recipient serology + PCR) • Low-risk: all the others (unchanged routines) 	<ul style="list-style-type: none"> • First-year f/u frequency: as now • Second year : as during first year • Baseline virology: as now • S-Alb, s-Hb below cut-off → virology • Enlarged Igl: → virology • Clinical signs: → virology (virology = EBV-PCR on 2 or more occasions)

5. Nordic shared waiting list.

At the time of the meeting the five children were waiting for liver segments.

Age span 1 to 11 years.

Criteria's for considering segment two plus three split is:

Age below 50 years,

BMI below 25,
 ICU stay < 3 days,
 ALAT < 3 X normal value.

The Scandinavian Transplantation criteria pay back strategy is as illustrated.
 INFOGA BILD

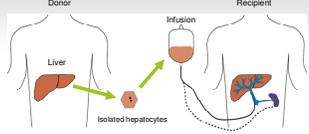
6. Hepatocyte transplantation.

Ewa Ellis held a talk about the liver cell transplant lab and the clinical experience at Karolinska Huddinge showing data of the two Criglar Najjar patients transplanted with liver cells so far.

Take home message!

Liver cell transplantation

Is an experimental treatment where the patient KEEP their own liver and new donated cells are infused into the patients liver



The treatment have low risk, if unsuccessful we are back where we started

Patients with certain inborn metabolic liver diseases can be treated
 Patients on the waiting list for a new liver can be treated
 Patients with acute liver failure can be treated

Donor cells

For Male patient (13 yo, 69kg)

Donor	Age	Gender	Blood group	CMV	Ischemia time	Hepatocyte suspension time	Part of liver	Yield	viability
1	29 yo	F	O	pos	11h	5-7h	Seg 1-3	9x10 ⁹ g	94%
3	4 mon	F	O	neg	5h	1.5-17h	Whole liver	65x10 ⁹ g	97%

166 x 10⁶ hepatocytes per kg body weight, 4.2% of liver mass

For Female patient (11 yo, 40kg)

Donor	Age	Gender	Blood group	CMV	Ischemia time	Hepatocyte suspension time	Part of liver	Yield	viability
2	40 yo	M	A	pos	15-35h	3-5h	Whole liver	20x10 ⁹ g	87%

133 x 10⁶ hepatocytes per kg body weight, 3.3% of liver mass

7. Study updates.

A. Nordic Pediatric Tx Study

Silvia Malenicka had hopefully the last presentation of the Nordic Pediatric Transplant Study. The data collection is completed and the manuscript is in preparation and revision

B. Future studies

- a. Åsa Noren and Gustaf Herlenius suggested a study on renal function post liver transplant, and will come up with a suggestion for study protocol till the next meeting.
- b. Björn Fischler informed about a surveillance study on allocation for pediatric liver transplant from the ESPGHAN hepatology committee. They ask for information on waiting time, mortality on waiting list, ratio of live related to diseased donor transplantations, ratio split to full size livers and whether there is rules or incentivization to consider splitting.

The meeting gave support for participating in this survey.

8. Next meeting.

In Copenhagen in one year in connection with NLTG