

Report of ESPN Immune mediated Renal Disorders Working group

Coordinator: Rezan Topaloglu (Since December 2015)

Board members: Esra Baskin, Carmine Pecoraro
Kjell Tullus and Licia Peruzzi (since December 2015)

Members: Alessandra Gianvitti, Birsin Ozcakar, Malgorzata Wasiak, Giuliana Guido, Joke Dehoorne, Narina Vivarelli, Maja Kovacevi,
Umut Bayrakci and Duygu Hacıhamdioglu (since December 2015)

Liaison ESPN Registry: Marjolein Bonthuis m.bonthuis@amc.uva.nl

Liaison Council: Carmine Pecoraro pecoraro@unina.it

Liaison ERA-EDTA: Licia Peruzzi liciaperuzzi@hotmail.com

CME ACTIVITIES

1. Journal Club August 2016

Four Papers included in August Journal Club are selected current approaches in pediatric hemolytic uremic syndrome and IgA nephropathy topics.

2. WHAT'S HOT WHAT'S NEW - AN UPDATE FROM THE IPNA 2016 MEETING - Immune Mediated Renal Disorders

Below four abstracts were chosen and brief summary of the abstracts were presented.

FP-S18-1 - Age at onset, renal survival and extrarenal complications in patients with aHUS: Findings of the global atypical haemolytic uraemic syndrome registry F. Schaefer et al

FP-S10-3 - Turkish Atypical Hemolytic Uremic Syndrome Registry: Evaluation of long term prognosis. Soylu A et al

S30-1 - Pharmacokinetics and pharmacodynamics of eculizumab in individualized treatment of atypical HUS. Volokhina E. et al

FP-S30-3 - Role of von Willebrand Factor (VWF) in endothelial cell repair after complement activation. Riedl M et al.

3. **ESPN Congress Glasgow 2017.** Organization of the symposium "The past, present and future of Immune Mediated Renal Disorders"

SCIENTIFIC PROJECTS UPDATE

1. A EUROPEAN REGISTRY OF CHILDREN WITH HENOCH SCHOENLEIN NEPHRITIS TO DETECT CLINICAL, GENETIC AND IMMUNOLOGICAL RISK FACTORS

Coordinator: Licia Peruzzi liciaperuzzi@hotmail.com or licia.peruzzi@unito.it

In 2014 the need for a new study investigating the outcome of recent cases of HSP and the risk factors for progression in a pan-European cohort was met by ESPN research call and granted with 10.000 Euros.

This project is articulated in 2 parts:

- a) **HSP NEPHRITIS REGISTRY:** a retrospective data-base collecting clinical data at time of biopsy and during yearly follow up in European children who underwent a renal biopsy for HSP nephritis in the last 20 years.

The Preliminary Analysis of HSP Nephritis Registry

The study was approved by the local Ethical Committee in February 2015 and since then an invitation letter to join the study was sent to pediatric nephrologists of most EU countries.

24 centers declared their interest (Lithuane, Romania, Serbia, Montenegro, Poland, Turkey, France, Germany, Great Britain, Switzerland, Italy, Portugal, Finland, Belarus, Belgium, The Netherlands, Sweden) and so far 12 centers have sent back the filled excel database concerning the summary data at disease onset for 225 subjects who underwent a renal biopsy for HSP nephritis and the main outcome results for 172 cases.

The follow up data with at least one evaluation per year are being filled.

The strikingly interesting data derived from this registry, basing on this interim analysis are mainly the following:

- A generally favourable outcome is observed in more recent cases compared to older series
- A longer follow up is needed, although the actual is already valuable
- Due to the more favourable outcome and the observation of a generally precocious therapy (in 70% of the cases before biopsy) a deeper investigation on the treatments adopted is required and this question has been sent to individual centers and we are now collecting the replies
- An integration of ISKDC classification with MEST is probably the best solution for grading also chronicity parameters

b) PROSPECTIVE STUDY FOR VALIDATION OF IMMUNOLOGIC RISK FACTORS:

Recruit a new cohort of 50 incident children receiving a renal biopsy for HSP nephritis to perform a large panel of immunological studies at the moment of maximal activity, at time of renal biopsy and possibly before treatment, together with the genetic study.

These studies include immunoproteasome switch, TLR expression, altered glycosylation of IgA1 and antibodies against deGAI IgA1, oxidative stress markers (AOPP), GWAS in collaboration with Columbia University

Logistics of laboratory samples for new incident patients for the immunological and the GWAS study has been settled in collaboration with Columbia University.

So far 52 samples were gathered for immunological and genetic study: this delay in collection of biological samples is due to regulatory restrictions in the different countries for biological sampling and Ethical Committee approval has been requested by most center to collect samples and data from new incident patients.

Centers who will not be able to participate with HSP with renal biopsy will participate with cases without renal involvement to the GWAS study filling a different appropriate database for genetic testing controls.

Complement activation study is being defined in collaboration with the Pediatric Nephrology group of Nijmegen who received an ESPN research grant for complement study in 2014 coordinated by Elena Volkhina.

Future Development

The preliminary database implemented on the therapy aspects and requiring detailed follow-up is being sent center by center.

Enrolment of new centers is encouraged and all centers contributing with at least one case will be included within the authors' list of any publication

Publications

1. Abstract selected for oral presentation at the ERA EDTA Congress in Vienna 2016
A EUROPEAN REGISTRY of HENOCHE SCHONLEIN PURPURA NEPHRITIS IN CHILDREN TO DETECT RISK FACTORS FOR PROGRESSION
2. Abstract selected for oral presentation at the SIN-SINePe (Italian Society of Nephrology in conjunction with Italian Society for Pediatric Nephrology) Congress in Milan 2016

Economic Update

The start-up funding of 10.000 Euros granted by the ESPN allowed to support the cost for reagents for the immunological study:

Until now 6870 euro + 21% VAT were employed for purchasing reagents for Taqman for Immunoproteasome, TLR (specific primers and consumables).

Residual funding will be used for other laboratory reagents and shipment of biological samples.

The project was cofinanced by "Fondazione Giovanni Gorla" Asti Italy, with a fellowship for a biologist and the 7th Framework program of EU "Kidney Connect project" for general costs.

2. LUPUS NEPHRITIS PATIENTS' TREATMENT SCHEDULE AND LONG TERM OUTCOMES is going on
Coordinator R.Topaloglu rezantopaloglu@hacettepe.edu.tr

3. CRESCENTIC GLOMERULONEPHRITIS IN CHILDREN

Coordinator Esra Baskin esrabaskin@yahoo.com

A Survey with 10 questions have been prepared and a mailing with the link to survey have been done to ESPN members. Link also can be reached under the working group page.