International registry of C3 glomerulopathy

Matthew Pickering
Terry Cook

13th July 2011
Aim

• To establish an international registry of C3 glomerulopathy
Background

• We have longstanding expertise in complement dysregulation and renal disease
  – Human pathology, animal models, complement genetics and complement protein
  – Recent example: CFHR5 nephropathy - a novel renal disease associated with complement dysregulation and which recurs in the transplant kidney

• We recently coined the term C3 glomerulopathy – defined on the next slide
C3 glomerulopathy

- Glomerular pathology associated with deposition of complement C3 in the absence of immunoglobulins

**OPINION**

C3 glomerulopathy: a new classification

Fadi Fakhouri, Véronique Frémeaux-Bacchi, Laure-Hélène Noël, H. Terence Cook and Matthew C. Pickering

Fakhouri, F. et al. Nat. Rev. Nephrol. advance online publication 6 July 2010; doi:10.1038/nmeph.2010.85

**Box 2 | C3 glomerulopathy**

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glomerular deposition of complement C3</td>
</tr>
<tr>
<td>Absence (or only scanty deposition) of immunoglobulin within glomeruli</td>
</tr>
</tbody>
</table>

**Examples**

- Dense deposit disease
- Idiopathic C3 glomerulonephritis
- Membranoproliferative glomerulonephritis type I with isolated subendothelial deposition of complement C3
- Familial membranoproliferative glomerulonephritis type II
- CFHR5 nephropathy (familial C3 glomerulonephritis associated with heterozygous mutation in CFHR5)
Plan

• To develop an international registry of C3 glomerulopathoy
• To utilise this registry to characterise the:
  – Spectrum of pathological changes
  – Clinical features
  – Treatment response including transplantation
  – Pathogenesis
    • complement genetics and protein analysis
  – Develop clinical trials
Registry will be web based
www.C3glomerulopathy.org
Vision

Entry to registry is determined primarily by pathological diagnosis

INTERNATIONAL REGISTRY OF C3 GLOMERULOPATHY

PATHOLOGY
Vision

Entry to registry is determined primarily by pathological diagnosis.

The pathology will be reviewed by the IRC3G Pathology sub-committee.

INTERNATIONAL REGISTRY OF C3 GLOMERULOPATHY

PATHOLOGY

Pathology Sub-committee
- Sethi
- Fogo
- Cook
- Barisoni
- Nast
- Alpers
- Noel
Vision

Entry to registry is determined primarily by pathological diagnosis

Clinical information will be sought from referring physicians and patients
Information will be overviewed by the Clinical Sub-committee

INTERNATIONAL REGISTRY OF C3 GLOMERULOPATHY

Pathology Sub-committee
- Sethi
- Fogo
- Cook
- Barisoni
- Nast
- Alpers

Clinical Sub-committee
- Fadi Fakhouri
- Tom Cairns
- Christoph Licht
- Alkis Pierides
- Peter Lavin
- Aoife Waters
- Carla Nester
Vision

Entry to registry is determined primarily by pathological diagnosis

Complement data will be sought where available and be overviewed by the Scientific Sub-committee

INTERNATIONAL REGISTRY OF C3 GLOMERULOPATHY

PATHOLOGY

CLINICAL

COMPLEMENT BIOLOGY

GENETICS

PROTEINS

Pathology Sub-committee
Sethi
Fogo
Cook
Barisoni
Nast
Alpers

Clinical Sub-committee
Fadi Fakhouri
Tom Cairns
Christoph Licht
Alkis Pierides
Peter Lavin
Aoife Waters
Carla Nester
Danny Gale

Scientific Sub-committee
Santiago Rodriguez
Marina Noris
Veronique Fremeaux-Bacchi
Peter Zipfel
Constantinos Deltas
Richard Smith
Loreto Gesualdo
Interaction with existing relevant registries

• We will invite existing registries to join this international effort

Examples:

- UK MPGN REGISTRY
  Sally Johnson

- US DDD REGISTRY
  Richard Smith
Executive committee

The registry will be supervised and administered by the executive committee

- Matthew Pickering
- Terry Cook
- Richard Smith
- Sally Johnson
- Fadi Fakhouri
- Sanjiv Sethi
- Loreto Gesualdo
Executive committee

We will also invite an advisory/review board to provide expert and impartial guidance periodically to the executive committee:

• Jerry Appel
• Beppe Remuzzi
• Charles Pusey