ABSTRACT 61  RD-BSRAR110
LABORATORY INVESTIGATION OF THE ROLE OF TOLL-LIKE RECEPTORS ON KIDNEY CELLS IN PATHOGENESIS OF LUPUS NEPHRITIS
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Introduction: LN is a serious complication of juvenile SLE. Previous studies have suggested a role for toll-like receptor 7 (TLR7) and TLR9 in SLE pathogenesis. Podocytes are specialized cells in the glomerular filtration barrier. Biopsies from LN patients have demonstrated higher TLR7 and TLR9 expression in glomeruli compared with controls.

Aims: To examine the role of TLR7 and TLR9 in podocytes to identify potential targets for more effective therapies of LN.

Method: Conditionally immortalized human podocytes were cultured. Quantitative PCR and Western blotting were used to detect TLR7 and TLR9 expression at the mRNA and protein level respectively. The effects of lipopolysaccharide (LPS), an inflammatory stimulus, imiquimod (TLR7 agonist), CpG (TLR9 agonist) and dexamethasone were examined. Phosphorylation of NFKB was assessed with Western blotting and a cell proliferation assay used to estimate cell survival.

Results: Treatment of podocytes with LPS was associated with increased expression of TLR7 at the protein level with comparatively little change in TLR9. Exposure to imiquimod or CpG increased phosphorylation of NFKB. There was preliminary evidence of less phosphorylation of NFKB when cells were treated with dexamethasone prior to TLR agonists. Initial results from the cell proliferation assay suggested lower levels after imiquimod or CpG treatment for 24h.

Conclusion: This study suggests that podocytes express TLR7 and TLR9. Agonists of these receptors have effects on intracellular signalling. If confirmed, the TLR-NFkB pathway in kidney cells may be a potential target for novel therapies in LN.

Disclosure statement: The authors have declared no conflicts of interest.

ABSTRACT 62  RD-BSRAR111
A SYSTEMATIC LITERATURE REVIEW ON DIAGNOSIS AND TREATMENT OF PAEDIATRIC RHEUMATIC DISEASES: A SHARED INITIATIVE
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Introduction: Paediatric rheumatic diseases (PRDs) comprise JIA, childhood-onset SLE, APS, vasculitis, scleroderma, JDM and periodic fever syndromes. They are rare conditions with significant morbidity. Due to their low incidence, treatment is insufficiently based on evidence and management differs throughout Europe. In order to guarantee optimal care there is a need for standardized management plans for children with PRD in Europe.

Aims: As a part of SHARE (Single Hub and Access Point for Paediatric Rheumatology in Europe), a work package (WP) has been defined to identify best practice and establish minimal standards of care for the treatment of PRD patients in Europe, in order to improve and standardize care across Europe.

Method: A systematic review was conducted on specific questions regarding diagnosis, treatment and complications of PRD. MEDLINE, EMBASE and Cochrane were searched using systematically built and validated search strings. After screening, a review process will be executed according to EULAR guidelines by groups of experts from PReS workgroups. The EULAR method for achieving recommendations guidelines on treatment of patients were followed.

Results: The results from the systematic reviews will be discussed in consensus meetings. Guidelines will be finalized by defining gaps in knowledge and adding expert opinion, using the Delphi method. This will lead to the formulation of minimum standards of care for individual PRDs.

Conclusion: It is essential to formulate well-founded standards of care for these rare paediatric diseases; doing so will most importantly benefit patients themselves, but also increase uniformity of care within the European Union.

Disclosure statement: The authors have declared no conflicts of interest.

TABLE 1  Work packages of the European SHARE project

<table>
<thead>
<tr>
<th>Work package (WP) and leader</th>
<th>Aims of WP</th>
<th>Anticipated goals and outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP-4, P. Delezoiteva, Prague</td>
<td>Identifying the specific needs for optimal care in PRD in each EU country and in order to achieve minimum standards of care.</td>
<td>The goal is to identify the specific needs for optimal care in PRD in each EU country. The available evidence will be graded by organizing consensus meetings.</td>
</tr>
<tr>
<td>WP-5, B. Vastert, Utrecht</td>
<td>Identifying best practices and establishing minimal standards of care for the treatment of patients suffering from PRD.</td>
<td>After completing a systematic literature review on treatment of PRD, the available evidence will be graded by organizing consensus meetings.</td>
</tr>
<tr>
<td>WP-6, N. Ruperto, Genoa</td>
<td>Establishing platforms for the exchange of information, data and samples for linking the existing networks and projects. Ensuring a better foothold of PRD patients in both research and treatment.</td>
<td>A part of the PREP site will link with existing registries, projects, etc. Patients with PRD will be provided knowledge on their diseases, treatment and research, providing access to patient specific networks including a platform for patients to express their views and provide feedback from parents on this project.</td>
</tr>
<tr>
<td>WP-7, J. Kummer, Descher, Tubingen</td>
<td>Identifying best practices for obtaining ethical consent and for data and sample collection in PRD.</td>
<td>Identify best practices for obtaining ethical consent, data and sample collection.</td>
</tr>
<tr>
<td>WP-8, A. Martini, Genoa</td>
<td>Ensuring implementation of best practice for training programmes on PRD healthcare professionals.</td>
<td>The goal is to disseminate up-to-date knowledge on PRD to healthcare professionals by providing a proposal for state of the art postgraduate education.</td>
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