Objectives: To co-design components of an RCT of corticosteroid regimens with CYP and parents living with JIA.

Methods: A focus group was conducted with CYP with JIA and parents as part of a wider consensus and discussion group meeting within the Steroid Induction Regimen for Juvenile Idiopathic Arthritis (SIRJIA) study in December 2018. The discussion focused on two components of the RCT design: i) Discussing the most appropriate treatment protocols; and ii) Addressing practicalities associated with an RCT.

Results: Two RCT protocol options, chosen through an online survey by a clear majority out of a possible eight protocols, were discussed and critiqued: i) Protocol A (intravenous vs intraarticular corticosteroid delivery); and ii) Protocol B (intravenous vs intraarticular vs intramuscular vs oral corticosteroid delivery). Several issues pertaining to both protocols were raised, related to the influence of age and past experience, routes of administration and concerns over randomisation. Participants emphasised the importance of clinicians/researchers discussing all of the potential risks with them. Participants also wanted enough information to make an informed choice. Participants emphasised the usefulness of combining trial visits with regular follow-up appointments to minimise the burden of taking part in an RCT and had a preference for their usual hospital being the site they visited. Some participants remarked that videos could be a useful way of conveying information beyond traditional participant information sheets. Some also felt that awareness of research opportunities is not equally accessible to them either, depending on where they lived in the country. Participants would want to be kept regularly updated about the progress of the RCT and felt that incentives were a good way of keeping people engaged, although some were trepidatious to hear negative treatment results. With regards to dissemination, participants felt that study results should be readily available to them in an accessible format, should they wish to view them.

Conclusion: CYP and parents have a considerable amount of knowledge and experience which can shape the design of RCTs. With adequate support, complex concepts such as treatment protocols can be discussed and critiqued. Involving CYP and parents at the design stage of an RCT has been shown to eliminate some potential challenges in the future.

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Disclosure of Interests: Simon Stones Consultant for: SS has provided consultancy services to Envision Pharma Group, though this is not related to the contents of this abstract., Speakers bureau: SS has undertaken speaking engagements for Actelion, eyeforpharma, Four Health, Janssen and Roche, though these are not related to the contents of this abstract., Heather Bagley: None declared, Frances Sherratt: None declared, Louise Roper: None declared, Eileen Baildam Consultant for: EB has received one paid consultancy for Pfizer in the last 12 months, but this was not related to this study.

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AB1059

CLINICAL MANIFESTATIONS OF CHILDHOOD-ONSET SYSTEMIC LUPUS ERYTHEMATOSUS PRESENTING WITH CYTOPENIA

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Background: Childhood-onset Systemic Lupus Erythematosus is a rare disease, with more than 50% of patients presenting with cytopenia of a decrease in at least one cell line.

Objectives: The purpose of this study was to evaluate whether clinical characteristics differed according to hematologic manifestation.

Methods: We retrospectively reviewed the presenting clinical and laboratory manifestations for 40 pediatric SLE patients (mean age 13.4 years, range 0-18 years), with leukopenia (n=12) and thrombocytopenia (n=15). Variables including age, inflammatory markers (ESR and CRP), prothrombin time, complement system (C3, C4 and CH50), immunoglobulin (IgG, IgA and IgM), Lupus anticoagulant ratio, antinuclear antibody, anti-phospholipid antibody, anti-platelet antibodies, anti β 2-glycoprotein antibody, anti-cardiolipin antibody, anti-smith antibody and anti-dsDNA antibody levels were compared according to grouping by presence of leukopenia ($<4000/\text{mm}^3$) or thrombocytopenia ($<100,000/\text{mm}^3$).

Results: Patients with cytopenia showed younger age at diagnosis than without (mean 13.1 vs. 15.2 years, $p=0.0031$ for leukopenia and 12.8 vs. 15.2 years, $p=0.014$ for thrombocytopenia), although the onset of puberty might not contribute to cytopenia. Patients with leukopenia showed lower C3 level than without (mean 44.7 vs. 73.7, $p=0.013$). Patients with thrombocytopenia showed lower anti-dsDNA titer than without (mean 94.1 vs. 259.8, $p=0.038$), and was more often negative for anti-platelet antibody (Ib/IX). There were no statistical differences among other variables. Also, there was no significant difference in one cell line decrement compared with both.

Conclusion: Pediatric SLE patients with leukopenia and thrombocytopenia in our study may independently decrease the levels of C3 and anti-dsDNA/anti-platelet (Ib/IX) antibody, suggesting respective pathologic pathways that do not affect each other.

DISCLOSURE OF INTERESTS

None declared

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AB1060

BONE MARROW FOOT OEDEMA IN CHILDREN: THE ROLE OF VITAMIN D

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Background: Bone marrow oedema (BMO) in children is a rare clinical condition characterized by joint and bone extremity pain, out of proportion to the clinical findings, exacerbated by weight bearing, in the absence of a known etiologic cause. It is associated with typical increased signal intensity on T2-weighted MRI. Management is still under debate. Treatment has mostly been reported in adult case series encompassing analgesic drugs, a variety of pharmacological treatments (corticosteroids, bisphosphonates, vasodilators), physiotherapy, reduction of weight-bearing, or core decompression. No treatment guidelines for children are to date available.

Objectives: Recently it has become evident that BMO is associated by an increase in bone turnover, in which vitamin D plays a pivotal role. In literature association between hypovitaminosis D and BMO of the foot and ankle in adult patients is reported. No data are reported in cohorts of children. The purpose of this study is to investigate the incidence of hypovitaminosis D in a paediatric population with primary bone BMO of the feet and the role of a vitamin D supplementation therapy.

Methods: A retrospective study involving 12 paediatric patients (range age 8-14 years) referred to our Rheumatologic Paediatric Clinic of Verona University in the period 2015-2018 with persistent foot pain and MRI compatible with BMO of the foot has been performed. They had all been misdiagnosed in other institutions as affected by algodystrophy or complex regional pain syndrome. Data collection included sex, age, medical and surgical history, recent or remote trauma history, symptoms at presentation, clinical examination, laboratory bone turnover markers, vitamin D levels, MRI, treatment and outcome.

Results: 2/12 patients are male and 10/12 female (male to female ratio: 1:5). 2/12 had a previous diagnosis of juvenile idiopathic arthritis ANA + with the disease in remission at the moment of evaluation. 10/12 were previously healthy.

In all cases history of minor ankle strain or recurrent microtraumas of feet prior to symptom onset had been reported. Joint hypermobility was observed in 75% of cases. One child had been previously treated with bisphosphonates and 5 with limb immobilization, without any improvement.