as incidental imaging findings in asymptomatic patients.
However, they can also cause chronic or acute arthropathy, generating symptoms. In the chronic setting, imaging features are usually characteristic and allow the differentiation of the type of crystal arthropathy. In the acute phase and in the early stages of the crystal deposition, the signs are often non-specific, and the final diagnosis still relies on the analysis of synovial fluid.
Radiography is the main imaging modality for the workup of these conditions. It can confirm the diagnosis and often characterizes the type of crystal arthropathy. In recent years, US has played an increasingly important role in this setting, and is a useful tool in superficially located crystal-induced arthropathies. CT nicely complements radiography for deeper sites, especially the axial skeleton. DECT is a promising tool for the characterization of crystal arthropathies, in particular gout as it permits a quantitative assessment of deposits, and may help in the follow up of patients.
When performed in the acute stage, MRI may show severe inflammatory changes that could be misleading and correlation to radiographs or CT should help to distinguish crystal arthropathies from infectious or tumoral conditions.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.7263

THURSDAY, 15 JUNE 2017

Fifty shades of remission in RA

SP0059 REMISSION: MORE THAN CLINICAL ...?

M. Boers. *Epidemiology & Biostatistics; Amsterdam Rheumatology and immunology Center, VU University Medical Center, Amsterdam, Netherlands*

This session is about defining remission. Most examples will be about rheumatoid arthritis (RA) because most experience has been gathered in that disease. But the concept of remission should be viewed from a wider perspective than one disease. The session includes two pro-con debates (on the utility of including imaging and biomarkers in a definition of remission).
As in all things, when embarking on a scientific project, one must ask:
"Why are we doing this?"
To even begin with answering the question, we must first agree on a clear conceptual definition of remission. When we started on the development of the ACR-EULAR definition of remission in RA, we used dictionary sources and discussions to settle on this:
"The state of absence of disease activity in patients with a chronic illness, with the possibility of return of disease activity." [1]
It is clear that choices are made from the beginning, especially with the concept "disease activity", and the possibility that disease activity returns (as opposed to "healing", where this possibility does not exist). Disease activity is a tangible concept adequately defined in RA, but less so in many other rheumatological diseases. Also, disease activity is conceptually separate from (mostly irreversible) consequences of the disease, such as damage. Finally, note that the above concept does not contain the elements "duration" or "treatment".
If we continue with the above concept, why do we want to proceed to operationalize the remission definition? The two main reasons are research and patient care. For both, it is clear that we are defining a very good, perhaps even the best state a patient can be in, given that we are talking about chronic disease, i.e. the root cause of the disease cannot be taken away to heal the patient. Being in such a good state has immediate benefits (minimal disease impact) and probably also future benefits, if lack of disease activity translates to less consequences (damage etc). In both research and patient care, we want a definition that is both valid (favorable test characteristics; links to prognosis) and feasible (time, costs, interpretability). Validity and feasibility oppose each other to a certain extent (eg, definitions with better sensitivity and specificity are usually more expensive). Research and patient care differ in their use of the definition. In research, validity and feasibility can be lower than in patient care, because research is about groups, and cost and interpretability are less of an issue than in patient care.
Most of the people criticizing the current ACR-EULAR remission definition of RA are confused over its purpose: whereas it was intended for use in trials, they criticize it for lack of validity in the clinic. For instance, it is felt that the patient global criterion is too strict, so that patients with no apparent inflammatory activity but a patient global score of 2 or higher (scale 0–10) are "unjustly" not classified as in remission. Also, the lack of a duration or treatment criterion is felt to be a problem, but this is not an issue in research.
In the following pro-con debates, please consider the following:
Proposals to change existing criteria for remission must also be held to the question: "Why are we doing this?"
References:
[1] Remission. (Accessed 21–02–2017, at http://en.wikipedia.org/wiki/Remission.)
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.7124

SP0060 BIOMARKERS ARE REQUIRED FOR REMISSION: PRO

R. Van Vollenhoven. *Amsterdam Rheumatology and Immunology Center Arc, Amsterdam, Netherlands*

1. Conceptually, remission is thought of as a state where the disease is absent. As we approach a better understanding of the underlying pathophysiological process of a disease, it becomes more and more relevant to include in a definition of remission appropriate biochemical markers of that process.
2. From a practical point of view, definitions of remission in RA have been built upon clinical parameters of disease activity, supplemented in some cases with a single biomarker. However, it is clear that in practice these definitions are insufficiently precise: held against a gold standard of expert opinion, they perform at around 80–90%, misidentifying one or two out of every ten patients. And while there is an understandable and in many ways desiriable development of more patient-reported emphasis in outcomes, it has considerable practical value to be able to objectify an important disease state such as remission.
3. There is convincing evidence to show that biomarkers can be employed succesfully to predict some aspects of RA. In the day-to-day care of patients with this disease, the most important prediction may be whether the effective drug can be tapered or not. Current evidence indicates that biomarkers may be invaluable at helping clinicians and their patients make this important decision.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.7288

THURSDAY, 15 JUNE 2017

Innate immunity

SP0061 A DAY IN THE NEUTROPHIL'S LIFE

A. Hidalgo. *Cell & Developmental Biology, Fundación CNIC, Madrid, Spain*

Immunity is essential for life, yet the strength of immune responses are not constant throughout the day. This oscillatory immunity reflects an adaptation of organisms to environmental changes that occur through day-night cycles, so as to optimize and concentrate effective responses to the times of maximal environmental threat. In my talk I will discuss our ongoing efforts to uncover the mechanisms by which neutrophils, the most abundant and aggressive of all immune cells, orchestrate temporal immunity. These mechanisms are reflected in diurnal changes in phenotype and function of neutrophils, which we refer to as neutrophil aging. We propose that the existence of a timed response of neutrophils governed by cell-intrinsic and –extrinsic mechanisms suggests that inflammatory disease co-opts ancestral processes to damage tissues.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.7054

SP0062 DIFFERENTIAL SCAVENGING OF APOPTOTIC CELLS AND BACTERIA

G. Krönke. *Internal Medicine 3, University of Erlangen-Nuremberg, Erlangen, Germany*

During inflammation and infection, we are simultaneously confronted with both self and non-self in form of dying cells and microbes, respectively. Mechanisms that facilitate the non-immunogenic clearance of self-antigens derived from apoptotic and necrotic cells and that, in parallel, allow the initiation of an immune response against invading pathogens are incompletely understood. Recent data from our laboratory show that the immune system actively sorts apoptotic cells (ACs) and bacteria into distinct subspecies of phagocytes thereby enabling a segregated processing of self and non-self as well as a differential immune response against these two entities. During inflammation, ACs were cleared by tissue resident macrophages (resMφ) that performed a non-immunogenic disposal of self antigens, whereas bacteria were preferentially ingested by monocyte-derived inflammatory macrophages. We identified the enzyme 12/15-lipoxygenase and the nuclear receptor Nr4a1, both specifically expressed by resMφ, as key factors that control the coordinated and non-immunogenic phagocytosis of ACs by these specialized macrophage subset. Incorrect sorting and aberrant uptake of AC-derived self-antigens by pro-inflammatory and immunocompetent phagocytes, however, resulted in the break of self-tolerance and autoimmunity. Our data thus demonstrate the importance of a sorted clearance of ACs for the maintenance of immunologic self-tolerance.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.7198

SP0063 THE ROLE OF MUSCLE IN INNATE IMMUNE RESPONSES

P. Rovere-Querini. *Immunology, Transplantation and Infectious Disease, San Raffaele Scientific Institute and Vita-Salute San Raffaele University, Milano, Italy*

The skeletal muscle represents a unique site from the immunological point of view. Leukocytes are virtually absent in healthy conditions. However they are quickly recruited upon muscle injury, persist during the regenerative phases to disappear again after tissue healing. Thus, it represents and ideal scenario to study the

involvement of the innate immune system in the homeostatic response either to the conventional programmed death of multinucleated myofibers and to the parallel occurrence of "non-canonical" cell death and survival programs, including necrosis and autophagy. Recruited phagocytes are responsible of the clearance of damaged myofibers and of dying muscle stem/progenitor cells, stromal cells and leukocytes. Muscle macrophages in particular are endowed with remarkable plasticity throughout regeneration and healing, switching from activated cells that generate inflammatory cytokines to reparative assets, that play a non redundant role during the resolution phases of the damage and regulate the termination of the inflammatory responses. This dynamic transition between is increasingly felt to be the key to muscle homeostasis. Conversely defects in the process favour maladaptive remodeling with deposition of collagen and fat accumulation and in predisposed individuals autoimmunity leading to inflammatory idiopathic myopathies. A specialized population of regulatory T (Treg) cells, which control the inflammatory response by promoting the M1-to-M2 switch, and the activation of the muscle stem cells, satellite cells is receiving increasing attention for their central role in tissue homeostasis. Thus, the immunological perception of muscle cell death and regeneration – in turn influenced by environmental cues, including mitophagy and alteration of the redox balance - determines whether these events foster successful tissue healing or persisting inflammatory myopathies. The insights that are progressively become available on this original scenario hold promises to develop new approaches for disease treatment. Thus, immunologic perception of death and regeneration of muscle cells determine whether these events promote healing of tissues or persistent inflammatory myopathies. The insights that are becoming increasingly available on this original scenario hold promise for the development of new approaches to the treatment of persistent human muscle disease.

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.7279

THURSDAY, 15 JUNE 2017

To be and to become: transition from paediatric to adult care

SP0064 TO BE AND TO BECOME: REFLECTIONS ON MY TRANSITION

W. Olsder. *YOUTH-R-WELL.COM, Groningen, Netherlands*

The importance of successfully transitioning pediatric patients to adult care is increasingly recognized across a wide range of health care providers. However, there are still many challenges occurring during the transition phase. This presentation will contribute to these challenges by sharing the journey of a young person with arthritis on the transition to adult care.

As a young patient with arthritis, I made the journey from pediatric care to adult care a couple of years ago. I am diagnosed with arthritis since I was 14 years old. In this presentation, I will show the experiences of my own transition. Furthermore, as the chair of Youth-R-Well.com, an organization for young people with RMDs in the Netherlands, I will share some of the main points around transition I learned from other young patients. For every person, the transition to adult care is experienced different. Therefore, I will try to give some main answers from personal journeys on the questions: How is the transition experienced by a young patient? What are the current challenges faced by a young patient during the transition? What should be the role of the parents during the transition? What are best practices for the transition to adult care?

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.7193

SP0065 ARE WE ASKING THE RIGHT QUESTIONS IN TRANSITION RESEARCH?

K. Minden[1,2]. [1]*Epidemiology unit, German Rheumatism Research Centre;* [2]*Charite Universitätsmedizin, Berlin, Germany*

Already in 1991 Robert Blum pointed to the diverse set of issues of which the clinicians need to be cognisant to successfully care for youth with chronic illness. Since then, the special health care needs of adolescents and young adults with chronic diseases, including rheumatic diseases, have been on the agenda. Despite efforts to develop holistic services and programmes for youth, there are still inconsistencies in service delivery and practice standards. This revealed a survey among paediatric rheumatologists from 115 centres in 22 European countries in 2016. A minority of European paediatric rheumatology centres have a written transition policy, follow a standardised, structured approach in transitioning patients and measure the success of their interventions with evaluated instruments. To overcome these deficits and existing practice variation, key elements of transitional care, frameworks and pathways to implement and assess transition programmes have been recommended by EULAR and PRES.

However, as long as we don't have robust evidence upon best practice for transition, on the best metrics for measuring "success" and "outcome" of transitional care services and on the impact of interventions on the young people with rheumatic diseases will the service planning and delivery for transition aged youth remain suboptimal and result in adverse long-term outcomes.

The literature about transitional care is exponentially increasing each year and comprises among others assessments of experience of care and clinical outcomes, evaluations of different services and processes of care. What we have learned so far from transition research in the field of rheumatology, which research priorities are currently set on the agenda by health care providers and whether they meet those of young people will be in the focus of this lecture.

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.7264

SP0066 IMPLEMENTATION OF A BRIEF TRANSITION PROGRAMME FOR ADOLESCENTS WITH JUVENILE IDIOPATHIC ARTHRITIS

L.R. Knudsen. *Department of Rheumatology, Aarhus University Hospital, Aarhus, Denmark*

Background: It is well described that adolescents and parents find transition between the children's and adult ward challenging (1–2) because they feel inadequate prepared, and find communication and cultural differences between child and adult care challenging. Thus, transitional care programmes becomes essential for a successful process (3).

Objectives: We aimed to develop a brief transition programme for adolescents with juvenile idiopathic arthritis (JIA), suitable for daily clinical practice in the children's and adult ward of rheumatology at Aarhus University Hospital, Denmark.

Methods: The development was based upon studies of transitional care programmes and qualitative studies of the patient, parent, and health professionals perspective in the transition process. Needs in the transition process from the perspective of both adolescents and parents were further investigated through semi-structured interviews. We used studies by Janet McDonagh and colleagues (3) as a theoretical framework for the programme development.

Results: The programme focuses on the final part of the transition process by including the adolescent from the children's ward at the age of 14. It runs for two years in the children's ward and continues the first year in the adult ward. The programme focuses on preparing the adolescent and parents for transition by enhancing the adolescent's knowledge and skills in coping with JIA. The programme further focuses on the relation between the adolescents and parents by bringing attention to the need for a gradually separation, and to placing more self-dependence on the adolescents. A guideline, describing the programme, containing concrete instructions to health professionals has been developed. The programme was primarily initiated by the adult ward, but nurses and physicians in both wards have been involved throughout the process.

The programme consists of the following elements;

- Assigned contact persons.
- Information leaflets about transitional care, transfer to adult care and differences between the children's and adult ward, i.e. in ways of working and treatment procedures.
- Independent consultations with health professionals.
- Materials for educational sessions.
- Educational sessions dealing with JIA and treatment, dialogue on adherence and challenges in adolescence.
- Arrangements of visits to the adult ward before transfer.

Conclusions: Our experiences with the programme in practise are generally positive. However, we have experienced that successful implementation calls for good collaboration and continuous involvement of the health professionals involved in the programme on a daily basis. Hence, ongoing meetings and communication have been essential to promote collaboration between the children's and adult ward.

References:

[1] Shaw KL, Southwood TR, McDonagh JE. User perspectives of transitional care for adolescents with juvenile idiopathic arthritis. Rheumatology 2004; 43:770–78.
[2] Reiss JG, Gibson RW, Walker LR. Health care transition: youth, family, and provider perspectives. Pediatrics 2005; 115:112–20.
[3] McDonagh JE, Shaw KL, Southwood TR. Growing up and moving on in rheumatology: development and preliminary evaluation of a transitional care programme for a multicentre cohort of adolescents with juvenile idiopathic arthritis. J Child Health Care 2006; 10:22–42.

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.1784

THURSDAY, 15 JUNE 2017

Heterogeneity in JIA

SP0067 CYTOKINES IN JUVENILE IDIOPATHIC ARTHRITIS

W. de Jager. *Pediatric Immunology, University Medical Center Utrecht, Utrecht, Netherlands*

The importance of cytokines in the pathogenesis of inflammatory diseases is highlighted by the success of therapeutic approaches directed against cytokines and cytokine receptors. Cytokines are characterized by their redundancy and pleyotropy: multiple cytokines can target the same receptor, while on the other hand a single cytokine can have multiple, even contradictory immunological effects.