The same upward trend was found with regard to disease duration before arthroplasty: a significant difference between group A and group B (16.98 y vs 21.66 y; p = 0.03) and between group A and group C (19.8 y vs 22.93 y; p = 0.00).

The rate of implant survival at 5, 10 and 15 years were comparable (from 84% to 89%); whereas 50% of eligible implants lasted 20 years or more (Figure 2).

Figure 2. Kaplan-Meier survival curve of implants.

The year of surgery was found to be significantly related to implant survival [Hazard Ratio (HR) 1.001, confidence interval (CI) 1.0001-1.0006; p < 0.001] as well as the presence of complications (HR 3.69, CI 1.82-7.48; p < 0.001) in multivariate analysis. Furthermore, prostheses of polyarticular RF-neg patients had more possibilities to last longer than those of S-JIA patients (HR 0.23, CI 0.09-0.53; p = 0.00) as well as implants of all polyarticular RF-pos and neg together (p < 0.001).

Conclusion: We observed an upward trend of both age at arthroplasty and disease duration before the first arthroplasty over time. JIA category, year of implants and the presence of complications significantly affected implant survival. Future researches should assess functional outcome and survival of implants according to medical therapy and different surgical approaches.

Disclosure of Interests: None declared

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THU0505 MUSCULOSKELETAL ULTRASOUND MONITORING DURING MTX TAPERING IN JIA: A PROSPECTIVE BLINDED COHORT STUDY

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Background: Juvenile idiopathic arthritis (JIA) is the most common chronic rheumatic disease in children. Musculoskeletal ultrasound (MSUS) is a reliable tool in the assessment of chronic inflammatory arthropathies. MSUS in JIA has demonstrated a higher sensitivity for detecting synovitis and tenosynovitis as compared to physical examination. The occurrence of subclinical synovitis (Sub-S: MSUS+/physical examination -) seems more frequent in wrist and foot joints; the clinical significance of Sub-S in real-life practice is still debated. Methotrexate (MTX) is the most widely used first-line DMARD in JIA therapy. Weekly treatment of the disease.

Objectives: We designed a cohort study in order to explore if MSUS monitoring during MTX tapering was able to predict disease flare.

Methods: JIA patients in CR (as defined by the JADAS score) for at least 12 months were enrolled in the study. Patients at first attempt of suspension (G1) were tapered as follows: 1 week of suspension every 3 weeks + 1 dose every 2 weeks for 3 months; if CR persisted, MTX was stopped. Patients who had a previous flare during/after MTX tapering (G2) had a similar tapering schedule but the step with 1 MTX dose every 2 weeks lasted 6 months. All patients underwent a complete MSUS of 48 joints every 3 months; clinicians who performed physical examinations and follow-up were blinded to US findings for the entire study period.

Results: 18 consecutive patients were enrolled between April 2018 and September 2019; patients had prevalently oligoJIA (55.5%) and RF- polyJIA (22.2%). Patients had been treated with MTX for 24.7 months (17.7-48.3), CR had been achieved 4.2 months after MTX start; 61.1% were at their first attempt of MTX tapering (G1). Baseline MSUS: at TO MSUS detected 9/18 patients (50.0%) with Sub-S (MSUS+). Aflated sites at TO were distributed as follows:

- MCP joints, 9 MTP joints, 1-h IP joints, 11 knees. No significant differences resulted in comparing demographic and baseline disease features between MSUS- and MSUS+ patients at TO. Follow-up MSUS: 14 patients (77.8%) completed the entire study protocol, 4 patients are still ongoing; 7 patients relapsed: 42.9% during tapering, 1 of them relapsed during a VZV infection and was excluded from further analysis. We considered as Tlast-MSUS the last available MSUS before relapse or final MSUS (i.e. three months after MTX withdrawal) for not-relapsed subjects.

At Tlast patients had at least 1 Sub-S. Sub-S per patient at Tlast were more than Sub-S at TO (2.85 vs 0.53 p=0.03) but the presence of Sub-S was not related with disease flare (50.0 vs 44.4% p=1). MSUS found 27 Sub-S of the small joints (sMSUS): 88.9% were in the feet, they had an OMERACT grading of 1. Sub-S+ patients were older (8.7 vs 3.9; p=0.002) therefore a weight-induced sub-S not related with JIA could be presumed. Kaplan-Meier curves were analyzed comparing MSUS results at TO and Tlast, both considering all Sub-S and excluding small feet joints (pMSUS). The best performance was achieved with MSUS at Tlast and pMSUS (figure below, p=0.11).

Conclusion: •Sub-S are present in 50% of patients in clinical remission >12 months. •Sub-S in older patients interest often feet small joints; these Sub-S may be of mechanical origin and are not associated with disease flare. •Sub-S increase during MTX tapering. Further patients must be enrolled to understand if Sub-S excluding feet small joints may predict disease flare.

References:


Disclosure of Interests: None declared

THU0506 LONG-TERM EFFECTIVENESS AND SAFETY OF CANAKINUMAB AS A SECOND BIOLOGIC AFTER TOCILIZUMAB IN CHILDREN WITH EARLY AND LATE JIA WITH ACTIVE SYSTEMIC FEATURES

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Background: Canakinumab (CAN) is often used as second biologics in juvenile idiopathic arthritis with active systemic features (sJIA). However, there are little information about its long-term efficacy and safety.

Objectives: To evaluate the long-term effectiveness and safety of CAN as a second biologics after tocilizumab (TOC) in sJIA patients depending on the duration of the disease.

Figure 3. Kaplan-Meier survival curve of implants.

The performance was achieved with CAN at Tlast and pMSUS (figure below, p=0.11).

Conclusion: •Sub-S are present in 50% of patients in clinical remission >12 months. •Sub-S in older patients interest often feet small joints; these Sub-S may be of mechanical origin and are not associated with disease flare. •Sub-S increase during MTX tapering. Further patients must be enrolled to understand if Sub-S excluding feet small joints may predict disease flare.

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THU0506 LONG-TERM EFFECTIVENESS AND SAFETY OF CANAKINUMAB AS A SECOND BIOLOGIC AFTER TOCILIZUMAB IN CHILDREN WITH EARLY AND LATE JIA WITH ACTIVE SYSTEMIC FEATURES

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