AB0629 ACCURACY OF SYNOVIAL FLUID ANALYSIS FOR THE IDENTIFICATION OF CALCIUM PYROPHOSPHATE CRYSTALS: AN ANCILLARY STUDY OF OMERACT CRITERION VALIDITY STUDY FOR ULTRASOUND IN CPPD

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discontinuation was 7 (range: 2-56) and 10 (range: 2-48), respectively. Pre-infusion steroids were re-started in 3 patients after a rise in sUA, with 1 regaining sUA response (patient 2) and 2 discontinuing therapy (patients 4 and 9). An additional patient had a loss of sUA response (patient 7) and discontinued, 1 patient discontinued due to hospitalization (patient 6), and 1 patient chose to discontinue therapy (patient 8). At the time of data collection, 4 patients remained on therapy (patients 1-3, 5). Eight patients had at least one AE (all deemed unrelated to treatment), including influenza, hypertensive crisis, and toe amputation. No IRs occurred.

Conclusion: In this case series, 8 of 9 patients received 6 months or more (≥12 infusion) of pegloticase. These cases suggest that pre-infusion GC discontinuation may be possible in some patients treated with pegloticase (particularly those over 70 years). Further investigation exploring this concept is warranted, including evaluating the optimal time and conditions to discontinue pre-infusion GCs with pegloticase.

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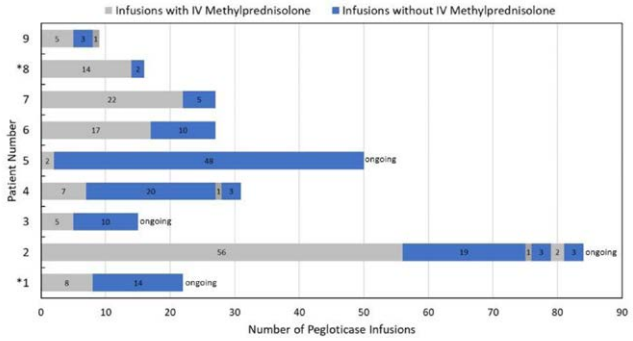
Figure. Pegloticase infusions administered with and without pre-infusion IV methyprednisolone at time of data collection



*patient administered oral methotrexate before and during pegloticase therapy.
Patients 4, 7, and 9 (ages 65-67) discontinued due to loss of sUA response.

Disclosure of Interests: Veronica Newsome Speakers bureau: Abbvie, Anthony Amatucci Shareholder of: Horizon Therapeutics plc, Employee of: Horizon Therapeutics plc, Tim Stainbrook: None declared., Brian LaMoreaux Shareholder of: Horizon Therapeutics plc, Employee of: Horizon Therapeutics plc.

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AB0629 ACCURACY OF SYNOVIAL FLUID ANALYSIS FOR THE IDENTIFICATION OF CALCIUM PYROPHOSPHATE CRYSTALS: AN ANCILLARY STUDY OF OMERACT CRITERION VALIDITY STUDY FOR ULTRASOUND IN CPPD

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Background: Synovial fluid analysis (SFA) via compensated polarized light microscopy is still considered the gold standard for the identification and diagnosis of Calcium Pyrophosphate Deposition disease (CPPD)-related arthropathies[1], but very few studies have been published about its diagnostic accuracy.

Objectives: The aim of this study was to evaluate the accuracy of SFA in the identification of calcium pyrophosphate dihydrate (CPP) crystals compared to microscopic analysis of joint tissues as the reference standard.

Methods: This is an ancillary study of an international, multicentre cross-sectional study performed by the CPPD subgroup of the OMERACT Ultrasound working group[2]. Consecutive patients with knee osteoarthritis (OA) waiting for total knee replacement surgery were enrolled in the study from 2 participating centres, Mexico and Romania. During surgical procedures synovial fluid (SF), menisci and hyaline cartilage were collected and analysed within 48 hours after surgery under transmitted light microscopy and compensated polarised light microscopy for the presence/absence of CPP crystals. All slides were analysed by expert examiners on site, blinded to other findings. A dichotomic score (absence/presence) was used for scoring both SF and tissues. Microscopic analysis of knee tissues was considered the gold standard. Sensitivity, specificity, accuracy, positive and negative predictive values (PPV and NPV) of SFA in the identification of CPP crystals were calculated.

Results: 15 patients (53% female, mean age 68yo ± 8.4) with OA of grade 3 or 4 according to Kellgren-Lawrence scoring were enrolled. 12 patients (80%) were positive for CPP crystals at SFA and 14 (93%) at tissues microscopic analysis. Among 12 SFA positive patients, all were positive for CPP crystals in either medial or lateral meniscus, and 11 were positive in both; 10 patients were positive at the hyaline cartilage, and all 10 were also positive for at least one meniscus. Regarding the 3 SFA negative patients, only one had no crystals in the examined tissues, while the other 2 patients had CPP crystals in both menisci and hyaline cartilage. The overall diagnostic accuracy of SFA compared to histology analysis for CPPD was 87%, with a sensitivity of 86% and a specificity of 100%, the PPV was 100% and the NPV was 33% (Table 1).

Table 1. sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV) and diagnostic accuracy of synovial fluid analysis compared to the reference standard. CI: Confidential Interval. SF: synovial fluid, in parentheses: numerators and denominators for all percentages provided.

	Sensitivity	Specificity	PPV	NPV	Accuracy
SF analysis	86% (12/14) (0.65-0.99) CI 95%	100% (1/1) (0.0-0.25) CI 95%	100% (12/12) (0.65-0.99) CI 95%	33% (1/3) (0.0-0.25) CI 95%	87% (13/15)

Conclusion: SFA demonstrated to be an accurate test for the identification of CPP crystals in patients with advanced OA. However, is not always feasible and carries some risks for the patient. Considering the availability of validated imaging techniques for the detection of CPPD, such as US, SFA could be used in those patients where imaging and clinical data are not definitely confirmatory of the disease.

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AB0630 PEGLOTICASE/METHOTREXATE CO-THERAPY IMPROVED JOINT AND PATIENT-REPORTED HEALTH ASSESSMENTS IN PATIENTS WITH UNCONTROLLED GOUT: 12-MONTH EXPLORATORY OUTCOMES OF THE MIRROR OPEN-LABEL TRIAL

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