NAIL PSORIASIS: THE UNDERESTIMATED DISORDER IN PSORIASIS AND PSORIASIS ARTHRITIS. CAN ULTRASOUND AND CAPILLARY MICROSCOPY IN PATIENTS WITH NAIL PSORIASIS SPEED UP OUR DIAGNOSIS AND THERAPY?


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Background: Nail psoriasis is an extreme diagnostic and therapeutic challenge and represents an enormous physical and psychological burden for affected patients. 50% of patients with psoriasis vulgaris develop nail involvement (NailPsO) during the course of their disease. NailPsO is the strongest predictor of psoriatic arthritis (PsA). Through the synovio-enthesis concept we have claimed that there is an anatomical-pathophysiological relationship between DIP joint, extensor tendon and nail matrix. We have observed in daily practice that hypervascularization (HV) in ultrasound Power Doppler (US-PD) the nail matrix may be a pathognomonic element in its own right. There are no data on this in the literature.

Objectives: Is there a difference in the ultrasound PD examination of the DIP joint and nail area and in the capillary microscopy of the corresponding nail fold in patients with psoriasis vulgaris and nail psoriasis versus patients with psoriasis vulgaris without nail psoriasis.

Methods: Monocentric prospective study of all consecutive patients with psoriasis vulgaris who have come to a rheumatological outpatient clinic. In addition to demographic data, assessments (PASI, DLQI, CASPAR, GEPARD, DAS28, SJ,TJ,FFBHe) clinical examination, a standardized ultrasound PD examination and capillary microscopy of the affected fingertips in PsO patients suffering from nail psoriasis was performed as well as corresponding examinations of the 2nd and 3rd finger right in PsO patients without nail involvement.

Results: 79 patients could be included during the study period. Thereof 25 PsO patients without nail involvement and 44 PsO patients with nail involvement. Since the patients were examined consecutively, the difference results. There was no difference in age, BMI and sex in both groups (PsO and NailPsO). The Caspar criteria as classification criteria for a PsA were positive in 65% of the NailPsO patients and positive in 50% of all PsO patients without nail inflammation. Hypervascularization in the US-PD examination in the area of the nail matrix could be seen significantly more often in NailPsO compared to non-NailPsO patients. Such a difference did not exist in the HV of the extensor tendons. Capillary microscopy showed a significant difference in the number of torsions/twist capillaries in NailPsO compared to PsO patients without NailPsO. Hypervascularization of the nail matrix is seen significantly more frequently in patients with psoriasis of the nail than in patients without psoriasis of the nail. Such a difference does not exist in DIP joint-extensor tendon- enthesis. At the same time, torsions are significantly more frequently seen in capillary microscopy in NailPsO than in patients without NailPsO.

Conclusion: The US-PD examination is a simple and non-invasive procedure which can be performed routinely in daily practice. The hypervascularization of the nail matrix should also make one think of nail psoriasis in the early stage of PsO, in order to be able to start early an appropriate therapy for this very stigmatising and therapeutically extremely difficult manifestation of PsO. It seems to occur independently of extensor tendon synovitis as an independent manifestation phenomenon.

The occurrence of torsions in capillary microscopy >50% also seems to be groundbreaking for a NagelPsO, whereby capillary microscopy is a temporal challenge in daily routine.

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AB1089

EVALUATION OF JOINT RHEUMATOLOGY/ RADIOLGY MDT OUTCOMES & THEIR IMPACT ON RHEUMATOLOGY SERVICE

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Background: Multidisciplinary team (MDT) discussion between rheumatology and radiology is vital in diagnostic and prognostic management of patients’ outcomes. Nevertheless, discrepancy of the radiology report and clinical history can cause unnecessary confusion and distresses to clinicians and patients. This could potentially affect subsequent clinical management.

Objectives: This survey was aimed to evaluate outcomes of rheumatology / radiology MDT discussion and to identify any discrepancies between original reports of the radiology images and amended reports following MDT. We also looked for potential reasons for the discrepancies and their impact on patient and health care resources due to erroneous original reporting.

Methods: We looked at all types of images which were discussed in rheumatology/ radiology MDT of University Hospital Plymouth from October 2016 to 2019.

Results: A total of 1136 MDT referrals were discussed at the joint multidisciplinary team of University Hospital Plymouth from October 2016 to 2019. 411 referrals were found to have potential discrepancies in the original and amended MDT report.

Conclusion: Discrepancies are a significant issue in the MDT process and can have direct implications for the patient and health care resources. Further research is needed to identify the reason for such discrepancies and how to improve the MDT process.
AB1090  BIOMARKERS TO DIFFERENTIATE EARLY INDISTINGUISHABLE CASES OF OSTEOARTHRITIS AND RHEUMATOID ARTHRITIS.

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Background: Osteoarthritis (OA) and rheumatoid arthritis (RA) are the most frequent inflammatory diseases of the musculoskeletal system, which could not be differentiated in their early stages, and characterized by degradation of articular cartilage and impairment of joint function. Sometimes, criteria and radiography are insufficient to distinguish the early stages of RA and OA and predict disease course, and therefore biomarkers that help clinicians to early diagnose disease are essential.

Objectives: The aim of this study is to estimate serum level of Matrix metalloproteinase-3 (MMP3) and hydroxyproline (HP) in early RA and OA patients to see if they can be used to differentiate both diseases at their early stages

Methods: The aim of this study is to estimate serum level of Matrix metalloproteinase-3 (MMP3) and hydroxyproline (HP) in early RA and OA patients to see if they can be used to differentiate both diseases at their early stages

Results: We found a highly significant elevation of serum MMP3 in OA patients group compared to RA patients and control groups. We also found a highly significant elevation of HP in OA patients than in RA patients and control groups.

Conclusion: Our results suggest that serum levels of Hydroxyproline (HP) rather than MMP3 could be used as a potential biomarker for early differentiation between osteoarthritis (OA) and rheumatoid arthritis (RA) when diagnostic criteria failed to be fulfilled.

References:

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AB1091  FREQUENCY OF ULTRASOUND ENTHESIS AND SYNOVITIS IN DIFFERENT ANATOMICAL SITES OF UPPER AND LOWER EXTREMITIES IN PATIENTS WITH PSORIATIC ARTHRITIS: CROSS-SECTIONAL STUDY

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Background: Psoriatic arthritis (PsA) is characterized by asymmetric enthesitis and synovitis. The location of pathological lesions is not clear. Furthermore, ultrasound (US) enthesitis indices assess limited number of entheses.

Objectives: To detect the most frequent sites of US enthesis and synovitis in PsA.

Methods: 57 PsA patients were enrolled to the study. US examination included bilateral large 14 joints; entheses of tendons and ligaments in the projection of examined joints (total number - 54). Totally, 798 joints, 3078 entheses were examined. The study was conducted by US rheumatologist. Data collection: demographical, clinical, US (total synovitis count by grey scale, enthesitis counted as the sum of structural and acute components (US enthesal findings assessed by the definition and scoring for enthesitis in PsA (OMERACT US))2. Chi-square test used to calculate difference of articular and enthesal frequency between upper and lower extremities.

Results: In all 57 patients: male - 25 (43.9%), mean age 43.4±10.3(SD) years (y), PsA duration was 7 (3;10) y, Disease Activity in PsA score 18.1 (10.2;26.1).

Table. Frequency of articular and enthesal involvement of different anatomical sites in PsA

<table>
<thead>
<tr>
<th>Location</th>
<th>Upper extremities</th>
<th>Lower extremities</th>
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<tr>
<td></td>
<td>Frequency</td>
<td>Frequency</td>
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<tr>
<td>Upper extremities</td>
<td>Joints / Entheses</td>
<td>Joints / Entheses</td>
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<tr>
<td></td>
<td>Upper extremities</td>
<td>Lower extremities</td>
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<tr>
<td>Acromioclavicular</td>
<td>29/456 (6.4%)</td>
<td>Hip</td>
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<td>Shoulder</td>
<td>3/456 (0.7%)</td>
<td>Kne   e</td>
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<td>Elbow</td>
<td>10/456 (2.2%)</td>
<td>Ankle</td>
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<tr>
<td>Wrist</td>
<td>27/456 (5.9%)</td>
<td>Trochanter major:</td>
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<tr>
<td></td>
<td></td>
<td>-glenoid minimum</td>
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<td></td>
<td></td>
<td>-glenoid medium</td>
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<tr>
<td>Short head of the biceps brachii</td>
<td>11/912 (1.2%)</td>
<td>Spina iliaca anterior superior</td>
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<td></td>
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<td>-inferior glenoid</td>
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<td>Ichiadous tuberositas</td>
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<td>Medial collateral ligament</td>
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<td>Lateral collateral ligament</td>
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