increased in RDC type 2 compared with type 1 and DDH. Increased posterior pelvic tilt was found in RDC type 2 compared with DDH. Logistic regression and receiver operating characteristic curve analyses indicated that MMP-3 may be associated with differentiation between RDC types 1 and 2. No difference was found in CTI between RDC types and DDH.

RDC type 2 hips developed partial (type 2A) and massive (type 2B) femoral head destruction within the first 12 months. Whereas partial destruction showed ≤20% collapse ratio, massive destruction demonstrated >40% collapse ratio. Increased posterior pelvic tilt was found in massive destruction. Femoral head destruction started earlier within the first 6 months in massive destruction compared with that in partial destruction. From receiver operating characteristic curve analysis, pelvic tilt differentiated the femoral head destruction types using the initial radiograph at the onset of the first demonstration of femoral head destruction. No difference was found in CTI or MMP-3 between the two subtypes.

Conclusion: Disease progression of RDC during 12 months after the onset of hip pain could be classified into two distinct types based on the absence (type 1) and presence (type 2) of femoral head destruction in association with MMP-3 and pelvic tilt as biological and mechanical factors, respectively. MMP-3 may be helpful to differentiate those two types in the early stage of RPOH. The extent of femoral head destruction could further differentiate RDC type 2 into two subtypes based on pelvic tilt.

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<table>
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<th>Table 1. Resulting scores for k = 9 for all 271 patients.</th>
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<td>Feature</td>
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<tr>
<td>Healthy</td>
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<td>Average</td>
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Conclusion: FOI is an innovative method that detects early changes in vascularization of the hands. So, this method can be useful in early detection of arthritis especially in risk populations such as PsO patients. The results of the objective scoring method show that a clear distinction between healthy and affected joints is possible with the average scores as well as the median values. However, if the range of the scores is considered, the overlap between healthy and affected is not negligible. The current scoring system can be used as an indicator but not as a single classification marker. Nevertheless, the research at hand has shown the expected outcome and motivates further development on the heatmap approach.

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Background: Pulmonary arterial hypertension (PAH) is a fatal complication of connective tissue diseases (CTDs), Chest CT has been increasingly used in the evaluation of patients with suspected PH noninvasively but there is a paucity of studies.

Objectives: Our study was aimed to investigate the cross-sectional area (CSA) of small pulmonary vessels on chest CT for the diagnosis and prognosis of CTD-PAH.

Methods: This retrospective study analyzed the data of thirty-four patients with CTD-PAH who were diagnosed by right heart catherization (RHC) and underwent chest CT between March 2011 and October 2019. We measured the percentage of total CSA of vessels<5 mm² as a percentage of total CSA of vessels<5-10 mm² as a percentage of total area (%CSA <5 and %CSA 5-10 on Chest CT. Furthermore, the association of %CSA with mean pulmonary artery pressure (mPAP) was also investigated.

Results: Patients with CTD-PAH had significantly higher %CSA <5 and %CSA 5-10 than CTD-LM-PAH (p<0.01). There was a positive correlation between %CSA <5 and mPAP in CTD-PAH (r=0.38, p=0.049). Conclusion: Quantitative parameter, %CSA <5 on Chest CT might serve as a crucial differential diagnostic tool for different types of PH. %CSA <5=0.38 is a prognostic indicator for evaluation of CTD-PAH.

References: