



PSORIASIS

CORRELATION BETWEEN NAIL PSORIASIS SEVERITY AND ULTRASONOGRAPHY CHANGES COMPARING WITH CONTROLS

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Introduction: The nail is intimately linked to enthesis which in turn is associated to the synovium forming a distinct organ referred as synovio-entheseal complex and nail psoriasis could be a clinical predictor of Psoriatic Arthritis(PsA)

Objectives: Correlate the ultrasonography(US) changes of the nails by the Gray scale(GS) and the Power Doppler(DP) with nail psoriasis and severity index (NAPSI); to compare the ultrasonographic alterations of the nails of patients with psoriatic disease, rheumatoid arthritis and healthy controls

Material and Methods: Cross-sectional observational study. Finger nail and periungual US were performed in 235 nails(37 nail psoriasis(nPs); 98 health nails of rheumatoid arthritis patients(nRA) and 100 nails of health controls(nHC). All the subjects and controls were aged between 55 and 75 years. NAPSI score:0-8. The US examination was performed by an experienced rheumatologist, with a high resolution equipment, with a linear high frequency(18 Mhz) transducer and the following features: Power-Doppler(PD) maximum frequency of 8 MHz, low filter and pulse repetition frequency(PRF)=0.5 KHz. For nail changes, semiquantitative scales were used, GS and PD(grade 0-3)

Results: For analysis between nPs, nRA and nHC the Kruskal-Wallis and Student-Newman-Keuls post-test were used. Patients with psoriasis have the highest scores for USGS when compared to healthy and RA patients($H=55.4366$, $p\text{-value Kruskal-Wallis}=0.00001$). Patients with RA and healthy did not present significant difference($H=0.3602$, $p\text{-value Kruskal-Wallis}=0.8352$). The correlation between NAPSI and USGS/USPD were not statistically significant($r_s=0.0814/-0.1542$, $t=0.4834/-0.9234$, $p=0.6318/0.3621$)

Conclusions: We observed a significant difference by the Gray-scale between patients with psoriatic disease (nPs) and controls(nRA+nHC). There was no significant difference for PD or between the sonographic findings and NAPSI. Limitations of this study are the reduced sample size and the non-availability of spectral Doppler

