AB1026 AN ANA SCREENING ASSAY (ELIA® CTD SCREEN) CONTAINING MULTIPLE ANTIGENS INCREASES THE SENSITIVITY AND SPECIFICITY OF ANA TESTING BY INDIRECT IMMUNOFLUORESCENCE

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Background: Antinuclear antibodies (ANA) are the serological hallmark of connective tissue diseases (CTD) and indirect immunofluorescence (IIF) on Hep-2 cells is still considered the gold standard for ANA screening. While this method is sensitive it lacks specificity. Moreover, low-titer ANA subspecificities may escape detection by IIF.
Objectives: To investigate the usefulness of an ANA screening assay containing most of the diagnostically relevant antigens for CTD diagnostics.
Methods: Sera from 265 consecutive patients presenting with symptoms characteristic of connective tissue diseases (but without a clear diagnosis yet) were analysed by IIF and the EliA® CTD Screen (Thermo Fisher Scientific) containing the following antigens: dsDNA, U1-snRNP, Sm, Ro60, Ro52, La, Rib-P, topoisomerase I (Scl-70), centromere B, RNA polymerase III, fibrillarin, Jo-1, Mi-2, Pm/Scl. All positive sera were further analyzed by monospecific assays (Thermo Fisher Scientific).
Results: Among the 265 patients, 90 were positive by IIF and 78 by CTD Screen; 61 sera were positive in both systems, 17 only in the CTD Screen and 29 only in IIF. In all double positive patients at least one diagnostically relevant antibody was detected, with anti-Ro and anti-dsDNA antibodies being most frequently detected. Importantly, antibodies were also detected in 15 of the 17 patients who were exclusively positive in the CTD Screen: 7 patients had anti-dsDNA, 4 anti-Ro, 1 anti-La, 2 anti-U1snRNP, and 1 patient had anti-Jo-1 antibodies. In contrast, among the 29 sera exclusively positive by IIF only two contained a diagnostically relevant antibody. Clinical evaluation revealed that 16 out of the 17 CTD Screen pos/IIF negative patients presented with at least 1 clinical sign commonly associated with systemic rheumatic disease (sicca syndrome, 12 patients; arthritis/arthralgias, 13 patients; microangiopathy, 2 patients; myositis, 2 patients; leukocytopenia, 2 patients; Raynaud's phenomenon, 5 patients; pericarditis, 1 patient; thromboembolic events, 2 patients). These patients may be at higher risk for developing a CTD, or, alternatively, may be at an early stage of a CTD in which a definite diagnosis is not yet to be made. The combination of distinct autoantibodies with clinical signs of systemic rheumatic disease, however, warrants a careful follow up in these patients.
Conclusions: ANA screening assays containing multiple antigens such as the EliA® CTD Screen seem to be helpful diagnostic tools that should be used in addition to IIF for detection of disease-associated autoantibodies enabling the physician to substantially improve diagnostics of connective tissue diseases.
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AB1027 THE UTILITY OF LIP BIOPSY IN PATIENTS DIAGNOSED OF IPAF (INTERSTITIAL PNEUMONIA WITH AUTOIMMUNE FEATURES)

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Background: The European Respiratory Society/American Thoracic Society Task Force has defined a classification criteria for interstitial pneumonia with features of autoimmunity that does not accord to a specific systemic disease. This criteria combines clinical, serological and radiological domains. The clinical criteria does not include dry syndrome eventhough the serological criteria does include antiRo and antiLa antibodies. It is known that some patients with dry syndrome with antibodies negativity undertake lip biopsy to confirm Sjögren Syndrome (SS). Therefore lip biopsy could be useful to IPAF if SS is suspected.
Objectives: Determine the utility of lip biopsy in patients with interstitial pneumonia that present symptoms suggestive of an autoimmune disease.
Methods: Retrospective study of patients attended between june of 2010 and june of 2016 in a tertiary referral hospital was done. We included 23 Pneumology patients diagnosed of IPAF that were referred to Rheumatology clinic to rule out underlying connective disease. All patients had a complete immunologic study, two pulmonary function test including diffusion capacity of CO and a lip biopsy to confirm SS. The results of the lip biopsy was analysed with different variables.
Epidemiologic data, blood test, pulmonary function test and pattern of ILD by high definition CT or lung biopsy were analysed. Changes in therapeutic decisions and pulmonary function test a year after the lip biopsy were also registered. To compare qualitative variables we used Chi Square test or Fisher exact test when necessary. The statistical significance was set up to p-value inferior to 0.05.
Results: 16 of 23 patients with ILD met classification criteria of IPAF (69.6%). 12 were women (52.2%) with a median age of 77 (from 54 to 87 years). The findings of our group is summarised in table 1.
9 lip biopsies confirmed SS (39.1%) and 7 changed treatment according to result (30.4%). No variables such as sex, smoking, previous lung disease, dry syndrome or Schirmer test showed relation with lip biopsy result. Previous treatment with corticosteroids did not seem to influence the results of lip biopsy eventhough it was not statistically significant (p-value 0.059). No relation with antinuclear antibody or acute phase reactants was observed either. Lip biopsy was most useful to diagnose SS for those with Usual Interstitial Pattern ($p<0.02$) among other patterns of ILD.

Variable	Number (percentage %)
Sex	Women 12 (52.2), Men 11 (47.8%)
Exposition to toxic	3 (13%)
Dry syndrome	19 (82.6%)
Altered Schirmer test	11 (55%)
Antinuclear antibody (>1/160)	12 (52.2%)
Anti La/Ro52/Ro60	0 (0)
Rheumatoid Factor	6 (26.1%)
Previous corticosteroid therapy	7 (30.4%)
Diagnostic lip biopsy	9 (39.1%)
IPAF criteria	16 (69.6%)
ILD pattern	UIP 4 (17.4%), NSIP 13 (56.5%), LIP 1 (4.3%)

Conclusions: Lip biopsy is a complementary examination to consider for IPAF. In our group the results were significant for UIP. Corticosteroid therapy did not seem influential to the results of lip biopsy eventhough it was not statistically significant. In 39.1% SS was diagnosed and in 30.4% treatment was changed according to results.
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AB1028 PREVALENCE AND DISTRIBUTION OF SESAMOID BONES IN THE HAND DETERMINED USING DIGITAL TOMOSYNTHESIS

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Background: Sesamoid bones are round or oval-shaped bones that are embedded in tendons. The prevalence and distribution of sesamoids in the hand varies between different populations. Conventional radiography (CR) is generally used to identify the sesamoid bones. However, there was no study using digital tomosynthesis (DTS).
Objectives: The aim of this study was to identify the prevalence and distribution of sesamoid bones in the hand using DTS in comparison to previous studies.
Methods: Using CR and DTS, hand images (81 left and 100 right) taken at a tertiary hospital were retrospectively reviewed. The sesamoid bones were identified in the distal interphalangeal (DIP), interphalangeal (IP), and metacarpophalangeal (MCP) of the thumb (I), index (II), long (III), ring (IV), and small (V) fingers. Differences in number of sesamoid bones detected on CR and DTS were analyzed.
Results: Sesamoid bones were observed in MCP I (100%), MCP II (46%), MCP III (2%), MCP IV (2%), MCP V (53%), and IP (53%) on CR. Using DTS, sesamoid bones were found more often in MCP I (100%), MCP II (54%), MCP III (2%), MCP IV (1%), MCP V (59%), and IP (75%). Differences in the mean number of sesamoid bones detected on CR and DTS were statistically significant. Sesamoid bones in DIP joints were frequently observed on DTS, but rarely found on CR.
Conclusions: Most sesamoid bones in the hand were detected in MCP I, II, V, and IP joints, and were more often detected on DTS than CR. DTS is a reliable tool to evaluate bony structures in the hand.
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AB1029 ULTRASOUND NAIL ASSESSMENT IN PSORIATIC ARTHRITIS AND PSORIASIS COMPARED WITH HEALTHY CONTROLS

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Background: Assessment of nail involvement is currently made by clinical assessment using nail psoriasis severity index (NAPSI). Whilst clinical assessment can detect superficial nail changes, the matrix and the extensor tendon region are not accessible for clinical assessment.
Musculoskeletal (MS) ultrasound (US) is playing an important role in the evaluation of psoriatic arthritis (PsA) patients. Recently, MSUS has been more used in the evaluation of nail involvement in psoriasis (Pso) and PsA patients.
Objectives: The primary objective of this observational, cross-sectional study was to assess the MSUS morphological and vascular abnormalities in nail in PsA and Pso patients compared with healthy controls. The secondary objective was to compare MSUS and clinical assessment of the nail in PsA and Pso patients.
Methods: We included patients with PsA (diagnosed according to CASPAR criteria) and patients with Pso without joint involvement (diagnosed by an experienced dermatologist according to clinical findings) and healthy controls.