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AB1560
QUADRICEPS FEMORIS MUSCLE PROPERTIES IN SARCOIDOSIS: FUNCTIONAL AND CLINICAL IMPLICATIONS

Keywords: Sarcopenia, Ultrasound, Lungs

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Background: Sarcoidosis is a chronic disease which may involve muscular system subclinically at the onset of the disease. Sarcopenia is a musculoskeletal condition that may be associated with nonspecific symptoms in patients with sarcoidosis such as general weakness, arthralgia, reduced exercise capacity, and fatigue. Objectives: This study aimed to determine the association between the functionality and the quadriceps femoris muscle (QFM) thickness measured using sonography in patients with sarcoidosis.

Methods: Thirty-one women with sarcoidosis and 27 controls were evaluated for the following outcomes: (i) handgrip strength, (ii) QFM thickness measured using ultrasound (US), and (iii) sonographic thigh adjustment ratio (STAR). The sarcoidosis group was also evaluated using the 30-second chair stand test (30s-CST) and fatigue severity scale (FSS).

Results: The QFM thickness and STAR values of the sarcoidosis group were significantly lower than those of the control group (p<0.0001). However, no statistically significant difference was observed between the handgrip strengths of the groups (p=0.581). There was no statistically significant correlation between the STAR values and handgrip strength in the sarcoidosis group (p=0.05); however, there was a statistically significant positive correlation between the STAR values and 30s-CST (r=0.467, p=0.008).

Conclusion: Probable sarcopenia is one of the musculoskeletal conditions in patients with sarcoidosis that may be associated with nonspecific symptoms, such as general weakness, exercise intolerance, and fatigue. Although the handgrip test is a frequently used test, it may not show prominent findings in the early stages of the disease. Ultrasound appears to be an innovative tool for preventing sarcopenia as it helps detect changes in muscle mass and muscle quality at an early stage.


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AB1561
COMPARISON OF DIAGNOSTIC PERFORMANCE OF TRUENAT™ MTB PLUS AND XPERT® ULTRA (GX) IN PATIENTS OF OSTEOARTICULAR TUBERCULOSIS (OATB): EXPERIENCE FROM NORTH INDIA

Keywords: Diagnostic tests

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Background: Diagnostic delay and drug resistance not only worsen the outcomes of tuberculosis, but are also important impediments to TB elimination efforts. Prompt and accurate diagnosis of osteoarticular tuberculosis (OATB) along with simultaneous detection of drug resistance is crucial to decrease the morbidity and associated sequelae.

Objectives: Given the need for a near point-of-care test suitable for primary healthcare centers and simultaneous detection of resistance, TrueNat MTB Plus (TruPlus), a chip-based real-time polymerase chain reactionassay, was evaluated for the first time for diagnosis of OATB and detection of rifampicin resistance from pus and synovial fluid samples.

Methods: Total of 100 synovial fluid/pus samples (20 microbiologically confirmed OATB[culture-positive], 50 clinically confirmed OATB [culture-negative], and 30 control patients) were subjected to TruPlus assay and Xpert Ultra (GX Ultra) assay; and their performance was compared. Results were evaluated against both culture and composite reference standard.

Results: The overall sensitivity and specificity of TruPlus in diagnosing OATB was 77.14%(54/70) and 100%, respectively. The sensitivity was 90% (18/20) for microbiologically confirmed cases and 72% (36/50) for clinically confirmed cases. Performance of TruPlus was superior to Xpert ultra (sensitivity = 70%). Overall, sensitivity and specificity of GX ultra was 70% and 100%. However, sensitivity of GX Ultra was 85% in culture confirmed cases and 84% (32/30) in clinically suspected cases of OATB. Both TruPlus and GX Ultra correctly reported Rifampicin resistance in four cases, when compared with phenotypic DST and rpoB gene sequencing.

Conclusion: TruPlus, with its greater portability and higher sensitivity than Xpert, could serve as an important tool for diagnosing OATB and rifampicin resistance at outreach endemic areas.

REFERENCES: NIL.

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AB1562
NAIL FOLD CAPILLAROSCOPY IN EVALUATING INTERSTITIAL LUNG DISEASE OF RHEUMATOID ARTHRITIS, SYSTEMIC SCLEROSIS AND IDIOPATHIC TYPE

Keywords: Rheumatoid arthritis, Systemic sclerosis

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Background: Nail fold capillaroscopy (NFC) is a non invasive diagnostic tool to detect early changes of microcirculation of different collagen diseases as rheumatoid arthritis associated interstitial lung disease (RA-ILD), systemic sclerosis interstitial lung disease (SS-ILD) and idiopathic ILD (Ting et al., 2020).

Methods: The study aimed to evaluate role of NFC in RA-ILD, SS-ILD and idiopathic ILD, and to determine if there is a correlation of it to disease activity.

Methods: A case control study conducted on 100 patients with ILD, where 30 patients with RA-ILD, 30 patients with SS-ILD and 40 patients with idiopathic ILD, fulfilling ACR/EULAR criteria, 2013. They were examined clinically and radiologically. Pulmonary function tests (PFT) and NFC were done.

Results: Pleural irregularities were found in 42% of RA-ILD, 30% of SS-ILD where subpleural irregularities were found in 31% of RA-ILD and 46.7% of SS-ILD. Ground glass opacity was in 19% of RA-ILD, 78.7% in SS-ILD and70% in idiopathic ILD. Normal-sounding appearance was in 11.5% of RA-ILD, 30% in SS-ILD and 65% of idiopathic ILD. SS-ILD showed the highest capillary changes especially patients with pneumo. A significant correlation was found between NFC and PFT in idiopathic-ILD.

Conclusion: NFC is a sensitive and specific adjuvant tool in monitoring micro vascular changes in rheumatologic diseases and can be used as assessment tool in severity of the disease.


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AB1563
CORRELATIONS BETWEEN LUNG INJURY AND PERIPHERAL VASCULAR MANIFESTATIONS IN PATIENTS WITH SYSTEMIC SCLEROSIS: A PRELIMINARY STUDY

Keywords: Lungs, Imaging, Cardiovascular disease

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Background: Systemic sclerosis (SSc) is a rare autoimmune disease characterized by the presence of vascular disease and tissue fibrosis. The alteration of vascular system in SSc is due to dysfunctions of fibroblasts and endothelial cells [1-4]. This dysfunction results in excessive collagen production and vascular damage, which are associated to multorgan damage. Lung disease in SSc is mainly characterized by interstitial lung disease (ILD) and pulmonary arterial hypertension (PAH). Transthoracic echocardiography is the most commonly used screening tool for PAH in patients with SSc, but definitive diagnosis requires confirmation by right heart catheterization (RHC) [4]. Numerous studies have demonstrated that nail fold videocapillaroscopy (NVC) provides an accurate assessment of microvascular damage in SSc and is able to predict internal organ involvement, such as lung damage.

Objectives: This work aims to evaluate possible correlation between lung injury and peripheral microvascular involvement in SSc patients.