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A STUDY OF DIFFERENT CLINICAL AND USG FINDINGS OF A RHEUMATOID HAND:

Medicine

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ABSTRACT

Musculoskeletal deformities should either be diagnosed using ultrasound or MRI and the former is a rapidly growing imaging modality used for the investigation and management of musculoskeletal disorders. Ultrasonography are safe and one thing is patient's tolerability and ability to scan multiple joints in a short period of time. Thanks to smaller high-frequency transducers that were better suited for superficial structures such as the small joints, many reports and studies have been published. But MRI scanning the patients ned that extra patience and with the deformity it is also challenging to hold the hand in a still position for a long time. And also the fact that it is relatively cheap. This study helps us understand the role of USG in diagnosing the pathology.

KEYWORDS

INTRODUCTION:

Arthritis means "inflamed joint." Arthritis describes any condition where cartilage in the joint breaks down. Normal joints consist of two smooth, cartilage-covered bone surfaces that fit together as a matched set and glide against one other. Arthritis can result when these smooth surfaces become irregular as the cartilage breaks down and don't fit well together anymore, essentially "wearing out." Arthritis can affect any joint in the body, and it can be debilitating when it affects the hands and fingers.

With the treat-to-target strategy (T2T), the updated treatment recommendations for rheumatoid arthritis (RA) in 2016 are aimed at remission within 3–6 months, though low disease activity may be an acceptable target in patients with RA with long-standing disease [1]. The current treatment strategy for patients with RA includes tight control with monotherapy or combination therapy using disease-modifying anti-rheumatic drugs (DMARDs). The aim of this strategy is to obtain rapid disease control, thereby preventing pain and joint destruction. Several clinical definitions of remission are proposed, mainly using composite scores where Boolean remission is the strictest [2–5].

Ultrasound (US) has been used as an instrument for monitoring disease activity in RA, where a synovial hypertrophy score ≥ 2 by greyscale (GS) and a power Doppler (PD) score ≥ 1 may be a sign of inflammatory activity. Recent studies have indicated that the presence of Doppler activity with a score of 1 may be seen in normal joints, suggesting a higher PD cut-off of ≥ 2 as a sign of pathology, though a certain cut-off between normality and pathology still needs to be determined [6–9].

Musculoskeletal deformities should either be diagnosed using ultrasound or MRI and the former is a rapidly growing imaging modality used for the investigation and management of musculoskeletal disorders. Ultrasonography are safe and one thing is patient's tolerability and ability to scan multiple joints in a short period of time. Thanks to smaller high-frequency transducers that were better suited for superficial structures such as the small joints, many reports and studies have been published. But MRI scanning the patients ned that extra patience and with the deformity it is also challenging to hold the hand in a still position for a long time. And also the fact that it is relatively cheap. Rheumatoid arthritis is one of the most common forms of arthritis in the hand, in addition to osteoarthritis and post-traumatic arthritis. Rheumatoid arthritis affects the cells that line and normally lubricate the joints (synovial tissue). This is a systemic condition (can affect the whole body), which means that it may affect multiple joints, usually on both sides of the body.

This study helps us understand the role of USG in diagnosing the pathology.

Aims and Objectives:

To study of different clinical and USG findings of a Rheumatoid hand.

MATERIALS AND METHODS:

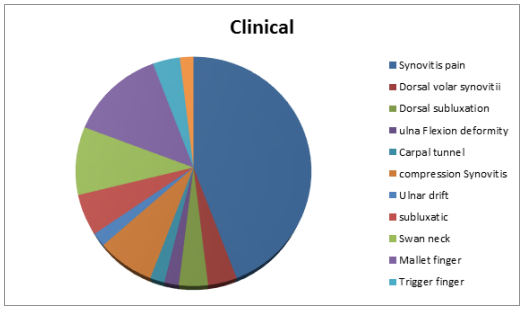
- Settings: This study will be done in the Department of Medicine, KMC, Mangalore
- Design: Descriptive
- Subjects: Rheumatoid Arthritis patients
- Sample Size: 30
- The study were done from Jan 2009 to March 2011

Methodology:

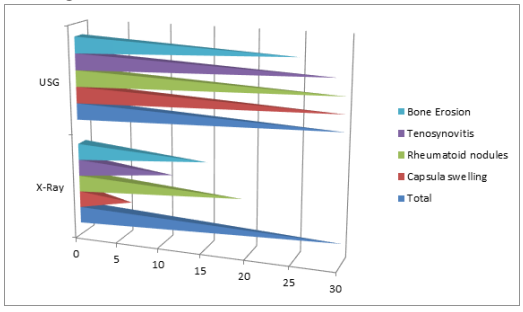
After taking the written consent the clinical and the X-Ray was taken and then USG findings were noted and reported

RESULTS:

The different signs and symptoms appreciated are



The USG signs that were noted were



DISCUSSION:

Stiffness, swelling and pain are symptoms common to all forms of arthritis in the hand. In rheumatoid arthritis, some joints may be more swollen than others. There is often a sausage-shaped swelling of the finger. Other symptoms of rheumatoid arthritis of the hand include:

- A soft lump over the back of the hand that moves when straightening the fingers
- A creaking sound during movement
- Fingers shifting away from the direction of the thumb
- Swelling and inflammation of the tendons that bend the fingers, resulting in clicking or triggering of the finger as it bends,

sometimes causing numbness and tingling in the fingers
- Inability to straighten or bend certain fingers or the thumb
- A bent middle finger
- An over-extended middle joint and bent fingertip also called a swan neck deformity.

The joint lining (synovium) becomes inflamed and swollen and erodes the cartilage and bone. The swollen tissue may also stretch the surrounding ligaments, which are the connective tissues holding the bones together, resulting in deformity and instability. The inflammation may also spread to the tendons, which are the rope-like structures linking muscles to bones. This can result in fraying and eventual breaking of the tendons.

Rheumatoid arthritis of the hand is most common in the wrist and the finger knuckles.

CONCLUSION:

Better cheaper ways to diagnose is USG when compared to the X-Ray and also it is essential to diagnose as early as possible to start treatment.

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