EVALUATION OF SHOULDER PATHOLOGIES BY ULTRASOUND AND MAGNETIC RESONANCE IMAGING

INTRODUCTION:-
The shoulder joint is an incongruous ball and socket joint without any fixed axis of rotation, which has a wide range of motion in multiple planes; hence stability is compromised for mobility. MRI is the modality of choice in evaluation of rotator cuff tear, especially supraspinatus tendon. MRI shows few advantages over USG with better anatomic information, better bony evaluation and confirmatory diagnosis. 40 patients with suspected shoulder pathologies were evaluated with either USG or MRI in Radiodiagnosis department of Dhiraj hospital, waghodia, Vadodara. The commonest pathology involving shoulder joint is rotator cuff pathologies like full and partial thickness tears and the next most common pathology is labral pathology. Supraspinatus tendon is most commonly involved tendon in rotator cuff tear. High resolution ultrasound & MRI, both are the modalities used in evaluation of shoulder joint, but MRI has become the “gold standard” for detecting shoulder pathologies.

AIMS AND OBJECTIVE:-
The aim is to evaluate various shoulder pathologies by Ultrasound or MR imaging of shoulder joint.

MATERIAL AND METHODS:-
This study used data of patients presented in radiology department in Dhiraj hospital piparia, waghodia, Vadodara from January 2018 to August 2019. 40 patients with suspected shoulder pathologies were evaluated with either USG or MRI. The study was carried out on PHILLIPS 1.5 T MRI machine & GE LOGIQ P9 sonography machines & using prospective and observational (non interventional) type of study.

DISCUSSION:-
In this study it was found that rotator cuff disease is most commonly occurring pathology of shoulder joint with approx. 50% cases. (n=20) The second most common pathology of shoulder is labral pathologies including Bankart, Hill sach and others. It is followed by acromio-clavicular joint arthritis which is seen in 5 patients (12.5%). It was found that Infection and Tumors are also seen in shoulder pathologies with approx. 10% cases (n=4).

Angela cadogon et al. Studied prevalence of imaged pathology in patients of shoulder pain & found that rotator cuff disease was the most common disease using both the modalities USG & MR imaging. (4)

CONCLUSION:-
High resolution ultrasound & MRI, both are the modalities used in evaluation of shoulder joint, but due to better anatomical visualization & multiplaner reconstruction, MRI results increased the referring doctor’s confidence in the diagnosis. The commonest pathology involving shoulder joint is rotator cuff pathologies and the next most common pathology is labral pathology. Acromio-clavicular joint arthritis, Infection & tumors are also seen involving shoulder joint. Ultrasonography is non-invasive, real time, non-ionizing, low cost and widely available technique. MRI has become the “gold standard” for detecting shoulder pathologies.

REFERENCES:-