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ACCURACY OF MRI AND ENDOANAL SONOGRAM IN FISTULA IN ANO COMPARING WITH OPERATIVE FINDINGS.

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TITLE-ACCURACY OF MRI AND ENDOANAL SONOGRAM IN FISTULA IN ANO COMPARING WITH OPERATIVE FINDINGS.

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Abstract-

Introduction – The study aims to determine accuracy of MR fistulogram and endo anal ultrasound in cases of perianal fistula taking operative findings as gold standard.

Materials and methodology: this comparative study incudes 29 patients with perianal fistula from surgical units of KMC affiliated hospitals. All patients will undergo MR fistulogram and endoanal sonogram preoperatively after clinic evaluation. Both the imaging results are compared with intra operative findings.

Result- MR fistulogram showed 100% sensitivity in identifying internal openings, TRUS was 86.6% sensitive in identifying internal openings. Both MRI and EUS were accurate equally in identifying external opening. MR fistulogram showed 100% sensitivity in identifying tracks, whereas TRUS was 75.5% sensitive in identifying tracks.

Conclusion- MR fistulogram is the best modality in complete assessment of fistula-in-ano preoperatively.

Key word- perianal fistula, MR fistulogram, endoanal sonogram.

Introduction-

The anal glands are located throughout circumference of anal canal. Infected anal glands spread infection through anal lumen to sphincter muscles, from which secondary spread can occur in all directions(2,3). Peri-anal fistula (Fistula in ano) is a common disease with high incidence of recurrence even after proper treatment. Recurrence is regularly caused by infection that was not detected by surgery and thus gone untreated . Recurrence rate after surgery is variable depending on the type of the operation, may reach up to (13.3%) with a median time to recurrence of 7.5 months . Interpretation of MRI of perianal fistula necessitates knowledge of pathophysiology, applicable anatomy of the pelvis, and fistula types, classification plus its implication for treatment. TRUS is used to assess fistula track and its course through sphincter complex, and also assessment of internal opening . The drawbacks being inability to assess extra-sphincteric and high fistulas due to limited field of view(4).

Aim-

To determine accuracy of MR fistulogram and endo anal ultrasound in cases of perianal fistula taking operative findings as gold standard To determine sensitivity and specificity of MRI and endoanal sonogram.

Materials and Methodology-

Study design- Prospective study comparing MRI and endoanal sonogram in cases of perianal fistula. Patients from surgical units of KMC, Mangalore with perianal fistula. It included 29 patients who are

- consenting for the study

- Age: ≥18 years

- Cases of primary perianal fistula

Patients excluded are - Age <18 years

- Patients not consenting for study

- Recurrent perianal fistula.

Sample size given by -   n= $\underline{Z^2_L\ SPE(1-SPE)}$/ e^2(1-prevalaence)

Z_L=1.96 at 95% C.I, e=10% n=29.

29 patients with perianal fistula from surgical units of KMC affiliated hospitals. All patients will undergo MR fistulogram and endoanal sonogram preoperatively after clinic evaluation. Both the imaging results are compared with intra operative findings.

Result-
13.8% of patients were in age group between 21-30, 27.6% in age groups between 31-40, 34.5% between 41-50, 24.1% between 51-60yrs, out of which 17.8% were females and 82.2% were males.
MR fistulogram showed 100% sensitivity in identifying internal openings, TRUS was 86.6% sensitive in identifying internal openings.
Both MRI and EUS were accurate equally in identifying external opening.
MR fistulogram showed 100% sensitivity in identifying tracks, where as TRUS was 75.5% sensitive in identifying tracks.