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Descriptive study on Various perianal fistulas in rural population using MR Fistuogram

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Abstract
Aims and Objectives: To study and evaluate different types of peri anal fistula.
Materials and Methods: Prospective observational study of 61 patients with suspected fistula in ano, primary and recurrent, referred from the surgical outpatient department was done in the Government Mohan Kumaramangalam Medical College and Hospital between September 2019 to January 2021 and the results were analyzed.
Results: 1) The mean age of the study is 39.74±11.92 years. 2) Most common fistula is Grade IV (26.2%) followed by Grade III (21.3%) and Grade II (21.3%).
Conclusion: Peri anal fistula iscommonly seen in men, between the age group of 31 to 40 years with mean age of 39.74±11.92. Grade IV (26.2%) fistulas is the most common type followed by Grade III (21.3%) and Grade II (21.3%) fistulas. The late presentation of G IV fistula in our study population explains the social stigma precluding the individuals from approaching medical assistance and thereby emphasis on creating medical awareness.

Keywords: MR Fistulogram, types of Peri anal fistula, social stigma in south Indian rural population

Introduction
Aims and Objectives
To study and evaluate different types of peri anal fistulas in rural population.

Materials and Methods
Prospective observational study of 61 patients with suspected fistula in ano, primary and recurrent, referred from the surgical outpatient department was done in the Government Mohan Kumaramangalam Medical College and Hospital between September 2019 to January 2021 and the results were analyzed.

Results

Table 1: Age Distributions

Age (in years)	Number	Percentage
≤ 20	3	4.9
21-30	12	19.7
31-40	21	34.4
41-50	16	26.2
51-60	5	8.2
> 60	4	6.6
Total	61	100

Table 1.1: Age-Descriptive Statistics

	Mean	S.D.
Age (in years)	39.74	11.92

In Table – 1, age distribution of the patients is represented. The common age distribution is 31-40 years where 34.4% and 41 to 50 years where 26.2% are observed. The mean age of the cases is 39.74 ± 11.92years.

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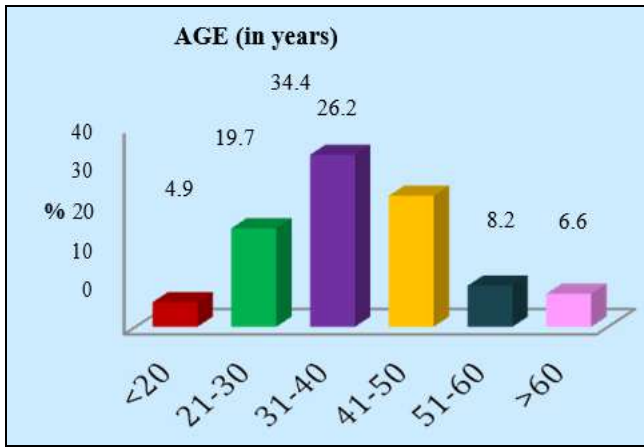Medical College, Salem,
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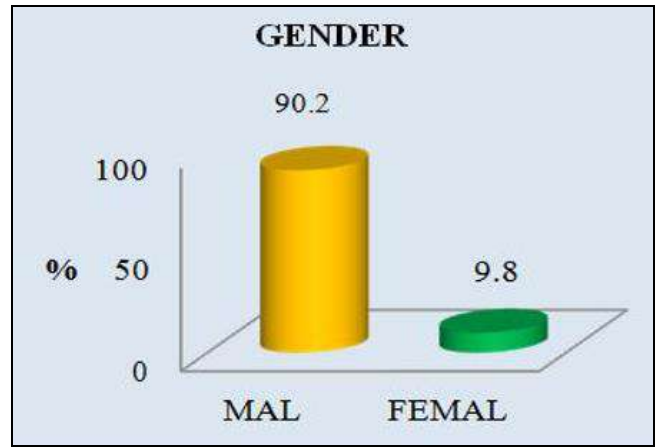
Fig 1: Age Distributions

Fig 2: Gender Distribution

Table 2: Gender Distribution

Gender	Number	Percentage
Male	55	90.2
Female	6	9.8
Total	61	100

Table 3: Mode of Presentation

Mode on Presentation	Number	Percentage
Primary	28	45.9
Recurrent	33	54.1
Total	61	100

Gender distribution of the study patients is presented in Table – 2. Male (90.2%) patients are more common than female patients.

The mode of presentation is primary for 45.9% patients and it is recurrent for 54.1% patients.
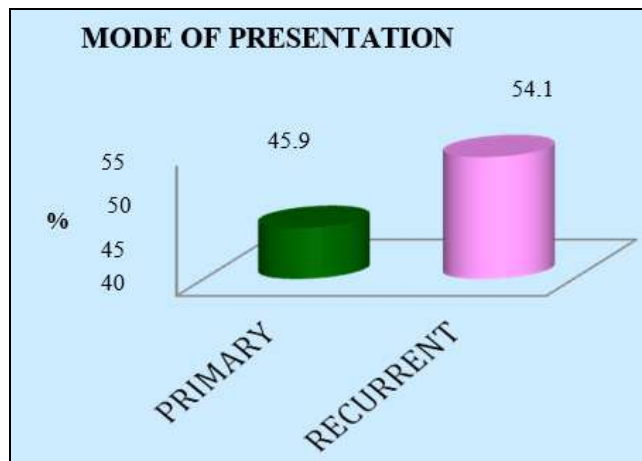

Fig 3: Mode of Presentation

Table 5: Distribution of patients according to grades

	Clinical Grading		MR Grading		Per Operative Grading	
	N	%	N	%	N	%
Normal	-	-	1	1.6	-	-
Grade I	20	32.8	4	6.6	6	9.8
Grade II	4	6.6	14	23.0	13	21.3
Grade III	19	31.1	13	21.3	13	21.3
Grade IV	6	9.8	16	26.2	16	26.2
Grade V	2	3.3	10	16.4	10	16.4
Abscess	2	3.3	3	49	3	4.9
Sinus	8	13.1	-	-	-	-
Total	61	100	61	100	61	100

common grading of fistula. Each of 21.3% has grade II and grade III classification. 16.4% have grade V classifications.

The distribution of patients according to grades is shown in Table – 7. The distribution is represented with specific to clinical grading, MR grading and per- operative grading is explained. As per-op grading is superior to other grades, it is taken into account for interpretations. 26.2% cases have grade IV perianal fistulas classifications and which is the
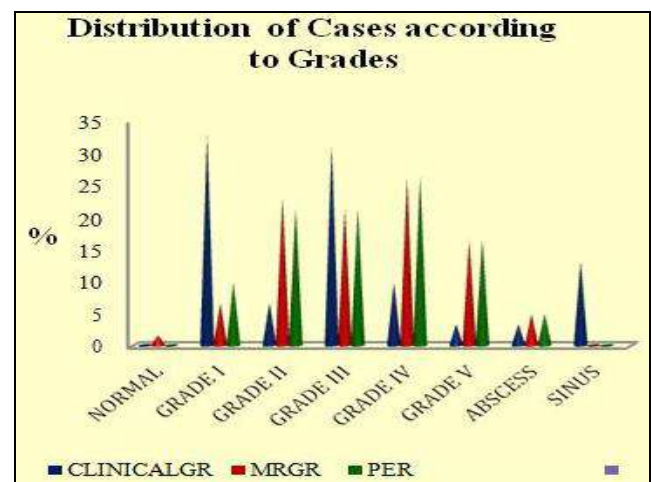

Fig 5: Distribution of cases according to grades

Table 6: Correlation of Mode of Presentation with Type of Fistula

Mode of Presentation	Coll-is		Coll-Es		Coll-SL		Second Tra		Hor-Shoe		Total
	Present	Absent	Present	Absent	Present	Absent	Present	Absent	Present	Absent	
Primary	4	24	7	21	0	28	9	19	6	22	28
Recurrence	3	30	11	22	1	32	15	18	6	27	33
Total	7	54	18	43	1	33	24	37	12	49	61

	Value	'P' Value	Value	'P' Value	Value	'P' Value	Value	'P' Value	Value	'P' Value
Chi-Square Test	0.402	0.526	0.506	0.475	0.863	0.353	1.125	0.289	0.101	0.751

The correlation of mode of presentation with type of fistula is presented in Table – 10. The chi- square test of association is insignificant ($P > 0.05$) for all the types of fistula with mode of presentation. There is no statistical association between mode of presentation and fistula types.
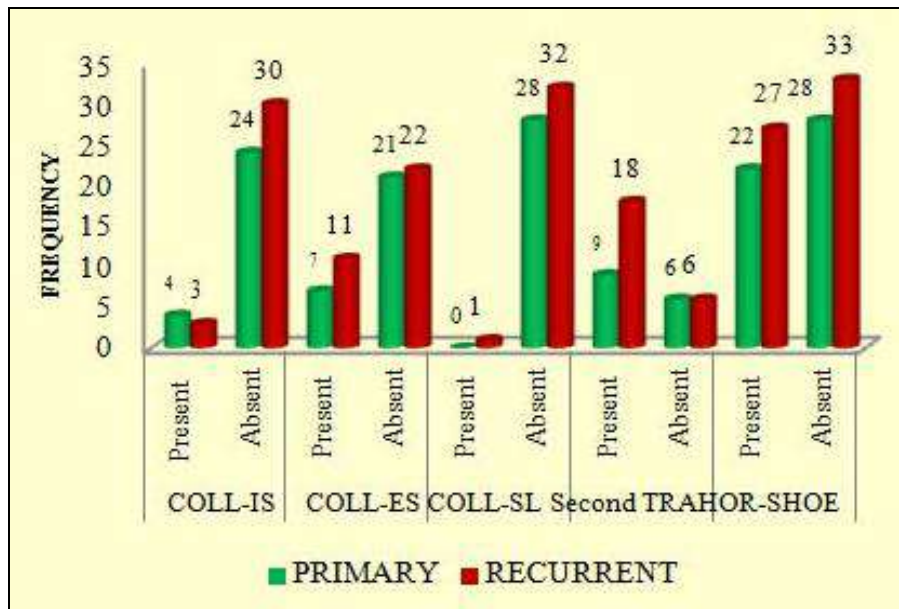

Fig 6: Correlation of Mode of Presentation with Type of Fistula

Discussion
Perianal fistulizationare uncommon but most important condition of the gastrointestinal tract causing substantial morbidity. Perianal fistulas occurs in approximately 10 in 100,000 persons, with a twofold to fourfold increase in male predominance. The anal fistulas were known to Hippocrates and have been described throughout the literatures, they began to obtain special attention in the 19th century. In 1835, Frederick Salmon founded the Benevolent Dispensary for the Relief of the Poor suffered with Fistulas, haemorrhoids, diseases of the Rectum and Lower Intestinal tract - the now reputed St Mark's Hospitalin London. Much of our understanding of perianal fistulas comes from the work of surgeons at St Mark's specialist bowel Hospitals, London: Salmon operated on Charles Dickens the great english writer; Goodsall, described the course of fistulous tracks from the skin to the anus [1]; and Parks, whose classification of fistulas in relation to anal anatomy is widely used in routine surgical practice [2].

Observations In Our Study
The mean age of the study cases is 39.74±11.92 years. About 54.1% of patients have recurrent mode of presentation. Recurrent cases have associated with various risk factors than primary cases and is statistically significant. Secondary tract findings are the more common type of fistula (24%) followed by Extrasphincteric fistulas tract (18%).There is no statistically significant association is noted for mode of presentation with type of fistula. In rural population, Grade IV fistula is common (26.2%) followed by Grade III (21.3%) and Grade II (21.3%). Our study population comes from a south Indian rural region where it is a social stigma to obtain medical advise for diseases pertaining to peri anal region. People hesitate and report to hospital at a very late stage we have coer to understand the significance to create knowledge and awareness among such population and motivate them to seek medical advise at an earlier stage.

Conclusion
Peri anal fistula is more commonly seen in men of age group 31 to 40 years with mean age of 39.74±11.92. The most common type in our study population was G IV fistula (26.2%) followed by Grade III (21.3%) and Grade II (21.3%). The late presentation with G IV fistula in our study population reveals the social stigma avoiding the individuals from seeking medical assistance and thereby signifies the need to create medical awareness.

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