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INCIDENCE OF TUBERCULOSIS IN FISTULA –IN-ANO.

KEYWORDS

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ABSTRACT The aim of our study was to evaluate the incidence of Tuberculosis in Fistula-in-Ano patients who are under going Fistulectomy procedure. Retrospective analysis of prospectively collected data of patients after Fistulectomy procedure between January 2014 to December 2016 was undertaken. A total 101 patients were included in the study, out Of 86 patients with single fistula, 1 patient was diagnosed with TB as the contributing factor to the Anal Fistula.In the rest 15 patients with multiple fistulae, 2 patients were diagnosed with tubercular fistula- in –ano. Tubercular etiology was diagnosed by histopathology study of the excised fistulous tract.

INTRODUCTION

Anal fistula is the most frequent symptom of anorectal TB (80-91%)cases. No functional sign or preferred site so it is difficult to distinguish a tuberculous fistula from a cryptoglandular fistula .Anal fistula present with purulent discharge around the anus & from within the anal canal. Discharge is associated with impaired anal hygiene & soiling. Inspection in most cases reveals an external opening around the anal canal but particularly in patient with intersphincteric fistula, there may be no apparent opening. Most anorectal fistula are secondary to cryptoglandular infection caused by enteric bacteria. The anal glands lie in the intersphincteric space and their ducts enter the anal canal to discharge at the dentate line.The acini ramify in the intersphincteric space and some penetrate the internal sphincter muscle and external sphincters. Pus spreads in the intersphincteric space upward, downward or laterally and results in abscess, commonly in the perianal region or in the ischiorectal fossa. These abscess are treated by drainage or by spontaneous discharge. Once the anorectal sepsis has drained, there is a potential communication from the peri anal region to the anal canal at the dentate line. Continued communication between two epithelial surfaces results in anal fistula. For many patients drainage is delayed or surgical treatment complicates the course of the fistula and results in circumferential spread.[1]Anal fistula are categorized as primary or secondary. Primary fistula are further classified by course of the primary track, which is usually sub divided into intersphincteric, trans sphincteric, supra sphincteric and extrasphincteric. TB should be suspected in cases of recurrent fistula in ano to avoid unusual delay in the treatment &morbidity to the patient. The course of fistula can often be predicted by the anatomy of the previous abscess. Drainage of an anorectal abscess results in cure for about 50% of patients. The remaining develops a persistent fistula-in-ano. While majority of fistulas are cryptogladular in origin, a complex ,recurrent or non healing fistula should raise the suspicion of crohn's disease, Tuberculosis, malingnancy.[2]

In developing country like India Tuberculosis is the most emerging cause of single & multiple fistula in Ano. The appropriate treatment for an anal fistula is dependent on the anatomy & the location of fistula tract by Goodsall's rule. The fistulous tract was excised by fistulectomy procedure & excised fistulous tract was sent for histopathology study to diagnose tubercular etiology.

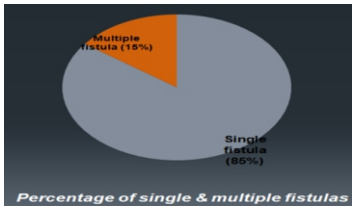
MATERIAL & METHOD

We conducted a retrospective analysis of prospectively collected data of patients after fistulectomy for anal fistula at M.K.C.G Medical College &Hospital Brahmapur from january2014 to December 2016.In this study a period of 3 years Total no 101 patients were included. The age ranged from 18 -81 years. Out of them 86 patients had a single fistula where as 15 had multiple Fistula-in-ano. There are wide variety of techniques for the treatment of anal fistula, we preferred fistulectomy (excision of the fistula track) followed by histopathology study of the excised fistulous track .

RESULTS

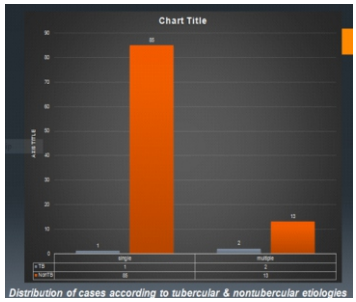
Of 101 patients entered with fistula-in-ano out of which 84 were male & 17 were female .The age ranged from 18-81 years.86 patients had a single fistula 1 patient (male) was diagnosed with TB as the causing factor to the anal fistula. In rest 15 patients with multiple fistulas 2 patients were diagnosed with tubercular fistula-in-ano(1 male&1 female).Incidence of Fistula of tubercular origin in single fistula was 1.16% similar to that found out by Dudley et al [3]. Incidence in male was 1.16% in this study, which is comparable to the 1.10% as stated by Bookhari et al.[4]Incidence of Tubercular Fistula in multiple anal fistula was 13.3% in the above study which relates to the incidence of 14% as found out b. Pennigton.[5]

	SINGLE FISTULA	MULTIPLE FISTULA
MALE	62	12
FEMALE	24	3
TOTAL	**86**	**15**



Percentage of single & multiple fistulas

	SINGLE FISTULA		MULTIPLE FISTULA	
	Tubercular	Nontubercular/ others	Tubercular	Nontubercular
MALE	1	61	1	11
FEMALE	0	24	1	2
TOTAL	**1**	**85**	**2**	**13**



Distribution of cases according to tubercular & nontubercular etiologies

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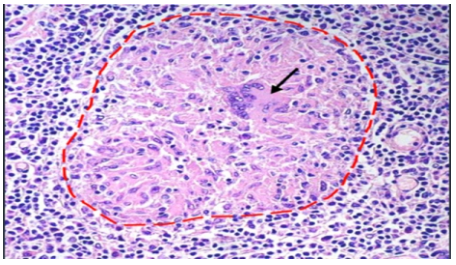
DISCUSSION

Tuberculosis should be suspected in cases of recurrent fistula-in –ano to avoid unusual delay in the treatment & morbidity to the patient. Accurate diagnosis of the site, extent and complexity of the fistula is essential for a successful treatment. Pre operative diagnosis includes careful anal inspection and digital examination, particularly to identify areas of induration and external openings that may discharge pus during rectal examination. Proctoscopy to identify the internal opening and any associated anal papillae or skin tags and procto sigmoidoscopy to exclude primary colorectal disorders. Ano rectal ultrasound may helpful in the course of intersphincteric fistula.MRI is regarded as the investigation choice for delination of anal fistula. Ano-perineal tuberculosis can be presented with or without lungs being affected& can be diffused. Tuberculosis one of the cause of granulomatous diseases in the anorectal origin. The clinical features(symptoms & signs of anal pain or discharge) multiple or recurrent fistula are not characteristically distinct from other anal lesions. The tuberculosis origin is uncommon and possibly underdiagnosed. Among the anorectal manifestations commonly associated with tuberculosis fistula is the most frequent complication. Pathogenesis of perianal fistulas in patients with Tuberculosis includes tropism of Koch's bacillus into lymphatic tissues. Other mechanisms may explain the presence of Koch's bacillus in the perianal region such as (a)hematogenous (b)lymphatic originating from infected lymph nodes(c)ingestion of contaminated milk or swallowing infected bacilli sputum from active pulmonary foci or even (d)direct dissemination from infected adjacent organs. Routine tests such as TLC, ESR, Mantoux test, X-ray chest .Detection of acid fast bacilli in the discharge or tissue section from the lesion using Ziehl-Neelsen stain and mycobacterial culture. Histo Pathological examination of the excised fistula is mandatory for the diagnosis of anal tuberculosis. None of the patients who were diagnosed with fistula-in ano of tubercular origin had positive history or clinical features suggestive of tuberculosis like evening rise of temperature, cough with expectoration, weight loss has been seen. In Tuberculosis suspected cases, as well as those confirmed tubercular fistula excision of the tracks &histological examination of the excised fistula is mandatory for the diagnosis of anal tuberculosis. Accumulation of epitheliod histiocytes & Langerhans giant cells, caseation necrosis in the centre with a surrounding rim of lymphocytes & monocytes is the hall mark tubercule .



There are a wide variety of techniques for the treatment of anal fistula. Fistulotomy or lay open for low lying tracks. Fistulectomy is for particularly extrasphincterc and rectovaginal fistula where sphincter function is to be preserved. Other methods include the fibrin plug,seton fistulotomy. We here preferred Fistulectomy followed by Histopathologic study of the excised track.

CONCLUSION

As the final point our findings indicate a significant correlation between multiple fistulae-in-ano & tuberculosis, than a single fistula-in-ano. Anal tuberculosis, when diagnosed, should be treated in a multidisciplinary approach. In Indian scenario, where these diseases are common, the patient should be also be informed of the hygiene issues to be followed in addition to the medical treatment.

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