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# Hypertrophied anal papillae and fibrous anal polyps, should they be removed during anal fissure surgery?

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## Abstract

**AIM:** Hypertrophied anal papillae and fibrous anal polyps are not given due importance in the proctology practice. They are mostly ignored being considered as normal structures. The present study was aimed to demonstrate that hypertrophied anal papillae and fibrous anal polyps could cause symptoms to the patients and that they should be removed in treatment of patients with chronic fissure in anus.

**METHODS:** Two groups of patients were studied. A hundred patients were studied in group A in which the associated fibrous polyp or papillae were removed by radio frequency surgical device after a lateral subcutaneous sphincterotomy for relieving the sphincter spasm. Another group of a hundred patients who also had papillae or fibrous polyps, were treated by lateral sphincterotomy alone. They were followed up for one year.

**RESULTS:** Eighty-nine percent patients from group A expressed their satisfaction with the treatment in comparison to only 64% from group B who underwent sphincterotomy alone with the papillae or anal polyps left untreated. Group A patients showed a marked reduction with regard to pain and irritation during defecation ( $P = 0.0011$ ), pricking or foreign body sensation in the anus ( $P = 0.0006$ ) and pruritus or wetness around the anal verge ( $P = 0.0008$ ).

**CONCLUSION:** Hypertrophied anal papillae and fibrous anal polyps should be removed during treatment of chronic anal fissure. This would add to effectiveness and completeness of the procedure.

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## INTRODUCTION

Hypertrophied anal papillae are essentially skin tags that project up from the dentate line, or the junction between the skin and the epithelial lining of the anus<sup>[1]</sup>. They are often found as part of the classic triad of a chronic fissure, namely the fissure itself, hypertrophied papilla above and a skin tag below<sup>[2,3]</sup>. They are also found in isolation, maybe firm and palpable on a digital examination of the anus. In this situation, they must be differentiated from polyps, hemorrhoids, or other growths. Endoscopically they could be differentiated from an adenomatous

polyp by their white appearance and their origin from the lower (squamous) aspect of the dentate line in the anal canal. They are usually a symptomatic but occasionally grow large enough to be felt by the patient or are likely to prolapse. Hypertrophied anal papilla should be included in the differential diagnosis of a smooth mass located near the anal verge, especially in a patient with a history of chronic anal irritation or infection<sup>[2]</sup>.

With passage of time, papillae continue to grow in size. A papilla is liable to acquire considerable fibrous thickening over a period of time when it gets a rounded expanded tip, which is known as a fibrous polyp. This is due to piling up and consolidation of chronic inflammatory tissues at the proximal part of the fissure at the dentate line. As many as 16% of the patients having chronic fissure in anus recorded the presence of papillae that turned into fibrous polyps<sup>[4]</sup>. These papillae are presumed to be caused by edema and low-grade infection.

A fibrosed-hypertrophied papilla is also frequently found at the upper part of a chronic anal fissure or guarding the internal opening of fistula in anus. In the later case however, the symptoms may completely dominate and distort the clinical findings. Dilated veins, white areas, and a large hypertrophied anal papilla are often found in prolapsing types of hemorrhoids<sup>[5]</sup>.

In the past, these structures were not given any importance and were left untreated. Those patients, in whom, the fissure in anus was treated but the concomitant papillae or polyps were left untouched, continued to complain of pruritus, wetness, or an intermittent pricking sensation in the anus. Those with fibrous polyps felt incompletely treated due to a feeling of *something* projecting from the anus. Even a case of giant hypertrophied anal papilla complicated with a massive anal bleeding and prolapse was reported<sup>[6]</sup>.

This study was aimed to assess the impact and utility of attending to these two conditions concurrently while dealing with cases of fissure in ano.

## MATERIALS AND METHODS

This study was carried out at Gupta Nursing Home, Nagpur, India, between July 2000 and December 2001.

Two hundred patients suffering from chronic fissure in ano associated with hypertrophied anal papillae or fibrous polyps were selected for the study. All these patients had primarily reported symptoms and complaints of chronic anal fissure. The papillae and polyps were diagnosed preoperatively by using a pediatric anoscope to avoid discomfort during examination. The number of papillae ranged from two to four. However, the fibrous polyp was found to be single in all those patients who were having this pathology.

Only those patients who came for a follow-up after 12 mo of the procedure were included in the study.

## Exclusion criteria

Patients having fissure in ano with sentinel tags or hemorrhoids and those who had not signed the informed consent were not included in the study.

The patients were divided into two groups viz: group A and B.

Group A consisted of one hundred patients in whom the anal papillae, anal polyp, or both were treated by radio frequency

procedure along with the fissure. Another hundred patients (group B) were treated only for the fissure and the papillae or polyps were left untreated. The randomization was done by a sealed envelope, which was opened by the operation room nurse upon patient's arrival for the procedure.

An informed consent was obtained from all patients under study. The study was approved by the local ethical committee and was done in accordance with the Declaration of Helsinki. No special pre-operative preparation was carried out. All the patients received a dose of laxative on the prior night. The patient description is given in Table 1.

**Table 1** Patient demographic data

Patient characteristics	Group A	Group B
No. of patients	100	100
Mean age yr	37	39
Male: Female	64:36	66:34
Hypertrophied papillae (No. of patients)	100	100
Fibrous anal polyp (No. of patients)	11	8

### Statistical analysis

Unpaired Student's *t* test was used to measure postoperative parameters. The level of statistical significance between groups was set at 5 per cent.

### Procedures

The procedure was carried out under a short general anesthesia with a muscle relaxant. A lateral subcutaneous sphincterotomy was performed to relieve the sphincter spasm. This was followed by insertion of the anoscope with a proximal illumination. The anal canal was cleaned off the collection. The papillae or polyps were located and were dealt with through a radio frequency surgical technique.

Radio frequency surgery aims at cutting or coagulation of tissues by using a high frequency alternate current. The radiofrequency device performs a simultaneous function of cutting and coagulating of the tissues. The effect of cutting, known as high frequency section, is executed without pressuring or crushing the tissue cells. This is due to the result of heat produced by the tissues' resistance to the passage of the high frequency wave set to motion by the equipment. The heat makes the intracellular water boil, thereby increasing the inner pressure of the cell to the point of breaking it from inside to outside (explosion). This phenomenon is called cellular volatilization<sup>[7]</sup>.

In this procedure, we used the radio frequency generator known as Ellman Dual Frequency 4MHz by Ellman International, Hewlett, N.Y. This instrument produces an electromagnetic wave of a very high frequency that reaches 4 megahertz. The unit is supplied with a handle to which different interchangeable electrodes could be attached to suit the exact requirement<sup>[8]</sup>. In our study, we used the ball electrode for coagulation and a round loop electrode for shaving off the desired tissues.

The papillae were directly coagulated with a ball electrode with the radio frequency unit kept on coagulation mode, which resulted in shrinkage and disappearance of the papillae in no time.

For the fibrous anal polyp, we initially coagulated its base circumferentially by a ball electrode and then shaved off the mass by using the round loop electrode. The minor bleeding encountered in some cases was coagulated by touching the bleeding points with the ball electrode. The whole procedure took around 7-10 min to complete.

The patients were prescribed analgesics for one wk and a stool softener for a period of 1 mo.

The first follow up was made after 30 d. The fissures were healed and there was no sphincter spasm in any of the patients from either group. During examination of patients from group A, anoscopies showed total absence of the papillae. Patients who were treated for fibrous polyps did have some amount of edema and mild elevation at the site of destruction. However, patients had fewer complaints of pruritus, pricking, heaviness and a sense of incomplete evacuation as compared to patients from group B.

### Follow up on completion of 12 mo of treatment

An independent observer blinded to the procedures made the observations during the follow up. He noted down all the symptoms in a prescribed format specially prepared for the study. The findings are given in Table 2.

### RESULTS

The patients from group A who were treated by sphincterotomy followed by radio frequency surgical procedures for removal of hypertrophied anal papillae or fibrous polyps felt far more comfortable as compared to patients in group B who were subjected only to sphincterotomy for treatment of fissure and in whom, as per the prevailing practice, the papillae or anal polyps were left untouched. The other visible advantages experienced by the patients in group A were: a relief of pain and irritation during defecation, absence of pricking or foreign body sensation in the anus and disappearance of pruritus or wetness around the anal verge.

**Table 2** One-yr follow-up findings of patients with removal or no removal of hypertrophied anal papillae and fibrous anal polyps (Student's unpaired *t* test)

Findings based on complaints of	Group A	Group B	P
Pruritus ani	7 (7%)	32 (32%)	0.0008
Anal pain and irritation	5 (5%)	26 (26%)	0.0011
Discharge per anus	2 (2%)	34 (36%)	0.0005
Sense of incomplete evacuation	5 (5%)	22 (22%)	0.0008
Crawling sensation in anus	8 (8%)	48 (48%)	0.0002
Pricking or foreign body sensation in anus	3 (3%)	32 (32%)	0.0006
Prolapsed per rectum	Nil	4 (4%)	N
Sepsis in the wound	1 (1%)	8 (8%)	0.0044
Recurrence of papillae or polyps	Nil	Not applicable	N
Recurrence of fissure	Nil	Nil	N
Overall satisfaction from the procedures	89%	64%	0.0004

N, not studied.

## DISCUSSION

Anal papillae were found in almost 50-60% patients examined by us in regular practice. Usually, they were small, caused no symptoms, and could be regarded as normal structures<sup>[9]</sup>. However, if it is a case of hypertrophy and the papillae start projecting in the anal canal, it not only requires attention but calls for a suitable treatment also. In such cases, there are chances of increase in the mucus leak resulting in increased anal moisture. These are liable to get traumatized and inflamed during the passage of stool. In addition, on being converted into a fibrous polyp, they tend to project at the anal orifice during defecation, often requiring to be digitally replaced. These polyps are considered as one of the differential diagnoses of rectal prolapse<sup>[10]</sup>. The patients also reported symptoms like pruritus<sup>[11]</sup>, a foreign body sensation, pricking, a nagging sense of incomplete evacuation and heaviness in the anal region.

As a routine practice, these pathologies were not given any importance<sup>[12]</sup>. There is very brief reference to this entity in the standard textbooks and other references. Secondary goals of fissure surgery sometimes required the removal of hypertrophied papilla and skin tag as well as the removal of inflammatory and fibrotic tissues surrounding the fissure<sup>[13]</sup>. Customarily, in the symptomatic papillae or polyps, their removal by crushing of the bases, excision after ligation or electrocautization has been suggested. All these procedures are time consuming and are associated with complications at times. The use of radio frequency devices to deal with these pathologies has been found to be a quick, easy and significant complication free procedure<sup>[14]</sup>. The device can ablate the papillae instantly, while the fibrous polyps can be excised after coagulation of the bases and thereafter the pedicles. In the present study, we have specifically excluded those patients of chronic fissure in ano who had sentinel tags or piles, as they were known to cause few of the similar symptoms that were associated with hypertrophied papillae or fibrous anal polyps.

Hypertrophied anal papillae and fibrous anal polyps are important anal pathologies associated with chronic anal fissure and are responsible for symptoms like pruritus, a pricking sensation, heaviness, etc. Their removal should be made an essential part of treatment of chronic fissures in ano. Persistence of these structures leaves behind a sense of incomplete treatment and thereby reducing the overall satisfaction on the

part of the patient. radio frequency procedures have been found useful in successfully eradicating these concomitant pathologies of chronic fissure in ano. This procedure should be given a fair chance to prove its utility and long-term efficacy.

## REFERENCES

- 1 **Lenhard B.** Guideline on the disease picture of hypertrophic anal papilla. *Hautarzt* 2002; **53**: 104-105
- 2 **Heiken JP, Zuckerman GR, Balfe DM.** The hypertrophied anal papilla: recognition on air-contrast barium enema examinations. *Radiology* 1984; **151**: 315-318
- 3 **Schwartz SI.** In Principles of Surgery, McGraw-Hill international book company, Singapore, 4th Edition 1984: 1225
- 4 **Thomson JPS, Nicholls RJ, Williams CB.** In colorectal diseases, William Heinemann Medical Book Limited, London, Page 312 1981
- 5 **Sadahiro S, Mukai M, Tokunaga N, Tajima T, Makuuchi H.** A new method of evaluating hemorrhoids with the retroflexed fiberoptic colonoscope. *Gastrointest Endosc* 1998; **48**: 272-275
- 6 **Kusunoki M, Horai T, Sakanoue Y, Yanagi H, Yamamura T, Utsunomiya J.** Giant hypertrophied anal papilla. *Case Report Eur J Surg* 1991; **157**: 491-492
- 7 **Pfenninger JL.** Modern treatments for Internal Hemorrhoids. *BMJ* 1997; **314**: 1211-1212
- 8 **Goldberg SN, Gazelle GS, Dawson SL.** Tissue ablation with radiofrequency: effect of probe size, gauge, duration and temperature on lesion volume. *Acad Radiol* 1995; **2**: 399-404
- 9 **Golighar J, Duthie H, Nixon H.** Surgery of the anus rectum and colon. *Fifth Edition Bailliere Tindal, London* 1992: 151
- 10 **Euro K W, Seow-Choen F.** Functional problems in adult rectal prolapse and controversies in surgical treatment. *Br J Surg* 1997; **84**: 904-911
- 11 **Sabiston DC.** In Textbook of Surgery, WB Saunders Company, London, 12th Edition 1981: 1130
- 12 **Jensen SL.** A randomized trial of simple excision of non-specific hypertrophied anal papillae versus expectant management in patients with chronic pruritus ani. *Ann R Coll Surg Engl* 1988; **70**: 348-349
- 13 **Weaver RM, Ambrose NS, Alexander-Williams J, Keighley MR.** Manual dilatation of the anus vs. lateral subcutaneous sphincterotomy in the treatment of chronic fissure-in-ano: results of a prospective, randomized, clinical trial. *Dis Colon Rectum* 1987; **30**: 420-423
- 14 **Brown JS.** Radio frequency surgery- Minor surgery a text and atlas. *Chap Hall Med* 1997; **42**: 300-326

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