

# Hypertrophied Anal Papillae and Fibrous Anal Polyps: Should They be Removed During Anal Fissure Surgery?

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**Objective:** The present study is aimed to establish that hypertrophied anal papillae and fibrous anal polyps can cause symptoms and could cause concern to the patients and that these should be removed while dealing with patients of chronic fissure in ano.

**Method:** Two groups of patients were studied. One-hundred patients were studied in Group A where the associated fibrous polyp or papillae were removed by radio frequency surgical device after performing a lateral subcutaneous sphincterotomy for relieving the sphincter spasm. Another group of one-hundred patients who also had papillae or fibrous polyps, were treated by lateral sphincterotomy alone. They were followed up to one year to assess their complaints.

**Results:** 89% 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.

**Key words:** Hypertrophied anal papillae, fibrous anal polyps, radio frequency surgery, fissure-in-ano, sphincterotomy

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 (1). These 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 (2-3). These are also found in isolation. These may be firm and palpable on a digital examination of the anus. In this situation, these must be differentiated from polyps, hemorrhoids, or other growths. Endoscopically it could be differentiated from an adenomatous polyp by its white appearance and its origin from the lower (squamous) aspect of the dentate line in the anal canal. These are usually not 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 (2).

With 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 ano record presence of papillae turned into fibrous polyp (4). 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 ano. In the later case however, the symptoms may completely dominate and distort the clinical findings. Dilated vein, white area, and a large hypertrophied anal papilla are often found in prolapsing types of hemorrhoids (5).

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

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

## Material and Method

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 was ranging 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 follow-up after 12 months 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. Group A and Group B.

Group A consisted of one hundred patients where the anal papillae, anal polyp, or both were treated by radio frequency procedure along with the fissure. Another one-hundred patients under study Group B were treated only for the fissure and the papillae or polyps were left untreated. The randomization was done by sealed envelope, which was opened by the operation room nurse upon patient's arrival for the procedure.

An informed consent was taken 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.

#### Statistical Analysis

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

The patient description is given in Table No. I.

Table I. Patients' demographic

Patient Description	Group A	Group B
No. of Patients	100	100
Mean age	37	39
Male: Female	64:36	66:34
Hypertrophied Papillae (No. of patients)	100	100
Fibrous Anal Polyp (No. of patients)	11	8

#### Procedure

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 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 as *cellular volatilization* (7).

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 inter changeable electrodes could be attached to suit the exact requirement (8). In our study, we have used the ball electrode for coagulation and a round loop electrode for shaving off the desired tissue.

The papillae were directly coagulated with a ball electrode with the radio frequency unit kept on coagulation mode, which resulted in their shrinking down and disappearing in no time.

For the fibrous anal polyp, we initially coagulated its base circumferentially by 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 minutes to complete.

The patients were prescribed analgesics for one week and a stool softener for a period of 1 month.

The first follow up was made after 30 days. 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, anoscopy 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 from this group were having fewer complaints of pruritus, pricking, heaviness and sense of incomplete evacuation as compared to patients from Group B.

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

An independent observer blinded to the procedure made the observations. He noted down all the symptoms in a prescribed format specially prepared for the study. The findings are given in Table No. II.

#### Results

The patients from Group A who were treated by the method of sphincterotomy followed by radio frequency surgical procedure for removal of hypertrophied anal papillae or fibrous polyps with the radiofrequency device were found 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.

Table II. One-year follow-up findings of the patients with removal or no removal of hypertrophied anal papillae and fibrous anal polyps.

Findings based on complaints	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%]	NS
Wound infection	1 [1%]	8 [8%]	0.0044
Recurrence of papillae or polyp.	Nil	Not applicable	NS
Recurrence of fissure	Nil	Nil	NS
Overall satisfaction from the procedure.	89%	64%	0.0004

*Student's unpaired t-test p<0.05 NS Not Studied*

The other visible advantages experienced by the patients in Group A were: relief in 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.

## Discussion

Anal papillae are found in almost 50-60% patients examined by us in regular course. Usually, these are small, cause no symptoms, and could be regarded as normal structures (9). 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 too. 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, these tend to project at the anal orifice during defecation, often requiring them to be digitally replaced. These polyps are considered as one of the differential diagnosis of rectal prolapse (10). The patients have also reported symptoms like pruritus (11), foreign body sensation, pricking, a nagging sense of incomplete evacuation and heaviness in the anal region.

As a routine practice, these pathologies are not given any importance (12). There is very brief reference to this entity in the standard textbooks and other references. Secondary goals of fissure surgery sometimes require the removal of hypertrophied papilla and skin tag as well as the removal of inflammatory and fibrotic tissue surrounding the fissure (13). Customarily, in the symptomatic papillae or polyp, its removal by crushing the bases, excision after ligation or electrocauterization has been suggested. All these procedures are time consuming and are associated with complications at times. The use of radio frequency device to deal with these pathologies has been found to achieve a quick, easy and significantly complication free procedure (14). The unit can ablate the papillae at once, while the

fibrous polyps can be excised after coagulation of the base and thereafter the pedicle. In the present study, we have specifically excluded those patients of chronic fissure in ano who had sentinel tags or piles, as they are known to cause few of the similar symptoms that are associated with hypertrophied papillae or fibrous anal polyps.

## Conclusion

Hypertrophied anal papillae and fibrous anal polyps are important anal pathologies associated with chronic anal fissure and are responsible for symptoms like pruritus, 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 procedure has been found useful in successfully eradicating these concomitant pathologies of chronic fissure in ano. We are of the considered opinion that this procedure should be given a fair chance to prove its utility and long-term efficacy.

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