Fistula in ano is a chronic condition that leads to abnormal communication between two surfaces. It usually connects anorectal lumen to an external opening on the skin of the perineum. There are many ways to perform surgical treatments for fistula. Open surgical procedures include fistulotomy and fistulectomy but they are used for low lying fistulae. These procedures can be adopted for high lying fistulae but increases the risk of incontinence as revealed by literature review.

Literature has shown that it develops mostly after an abscess of crypto-glandular origin but there is strong association of inflammatory bowel disease, trauma and carcinomas with it. It is more common in males than females having ratio (2:1). Various classifications are used for fistula identification but Park classification is widely used nowadays. It explains the course of fistula in relation to the sphincter mechanism thus classify fistulas into simple or complex category. Simple anal fistulas have one tract that crosses <30% of external anal sphincter. Complex anal fistulas have multiple tracts that crosses >30% of external anal sphincter.

Clinical picture of patients having anal fistulas is variable. Their symptoms include pain, swelling, redness, foul smelling discharge from peri-anal, anal and perirectal tissues. Although fistulas are a common surgical issue especially among males yet its treatment remained a big challenge for medical team. Literature review showed that long-term antibiotics prophylaxis along with infliximab play a role in recurrent fistulas among patients having Cohn disease.

Poor hygiene at the anal area leads to sepsis/abscsses formation even after surgery. Even after all odds, surgical treatment option remains the priority followed by medical treatment. Surgical procedure is done in order to drain infection, eradicate the fistulous tract, and avoid persistent or recurrent disease while preserve anal sphincter function.

VAFT procedure has diagnostic and therapeutic phases. Procedure (VAFT) is complex in comparison to other techniques. This procedure requires Meinero Fistuloscope for identification of the external opening. Upon entering into fistula tract, cauterization of tract with unipolar electrode is done. Literature review revealed that almost there is 12% incidence of incontinence after complex fistula treatment with traditional techniques like fistulectomy and cutting seton. However, re-opening of wound is done in complicated cases.

Previous studies showed that VAFT procedure is safe as a treatment modality in comparison to Anal Fistula Plug and conventional Seton placement for complex fistulas or high anal fistulas thus advocated sphincter saving procedure in our setups.

Conclusion: It was concluded that this new surgical technique has advantages like sphincter-saving with small surgical wounds. However, fistuloscopy identifies secondary tracts or chronic abscesses.

Keywords: Healing, High Lying Fistula and VAFT.
Gender distribution showed that 118 (77%) were males while 35 (23%) were females as shown in Table 1. Other descriptive parameters of enrolled subjects were shown in Table 1.

Table 1: Baseline parameters (n=153)

<table>
<thead>
<tr>
<th>Categories</th>
<th>Study Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
</tr>
<tr>
<td>30-40</td>
<td>122 (80%)</td>
</tr>
<tr>
<td>41-50</td>
<td>26 (17%)</td>
</tr>
<tr>
<td>51-60</td>
<td>05 (3%)</td>
</tr>
<tr>
<td>Mean ± SD</td>
<td>38±2.03</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>118 (77%)</td>
</tr>
<tr>
<td>Female</td>
<td>35 (23%)</td>
</tr>
</tbody>
</table>

Data was stratified for age and gender as shown in Table 2. Results showed that there was a significant improvement in healing rate among participants when stratified according to different age groups. Moreover, significant difference was seen when they were stratified for healing among both males and females as shown by Table 2.

Table 2: Stratified data with age and gender

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Healing</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>30-40</td>
<td>85</td>
<td>27</td>
</tr>
<tr>
<td>41-50</td>
<td>18</td>
<td>08</td>
</tr>
<tr>
<td>51-60</td>
<td>04</td>
<td>01</td>
</tr>
</tbody>
</table>

*Statistically significant

DISCUSSION

With advancement in medical field in current era, several new sphincter preserving techniques have been developed. In comparison to other less invasive techniques, VAAFT is a unique procedure in regard as it visualizes entire fistula tract, secondary tracts and the internal fistula openings. This procedure is usually indicated for complex anal fistulas. Its success is dependent on identification of all tracts during the diagnostic phase. In fistulas with multiple branches, MRI correlation is useful. Secondly, destruction of all granulation tissue followed by evacuation of necrotic tissue from fistula tract during the operative phase.

Our study showed 80% patients were in age range 30-40 years, 17% patients were in age range 41-50 years, 3% patients were in age range 51-60 years. Mean age was 38 years with SD ± 2.03. Seventy seven percent patients were male and 23% patients were female.

Our results showed that this is a safe and anal sphincter saving techniques in relation to healing and patient satisfaction level. Results showed healing in 70% of patients while 30% patients failed to heal. Similar results were shown by other study when they employed it in terms of healing and patient satisfaction16.

One previous researcher showed that this new technique has a success rate of around 75%. Majority of the patients (60%) had normal continence post-operatively 60% had normal while 40% patients had incontinence for gas or fecal soiling after the procedure11. Thus their success rate was close to our success rate for same procedure.

One study enrolled 136 patients with non-Crohn’ disease-related anal fistulae, within 2-3 mo of follow-up, gained an overall success rate of 73.5%. No postoperative incontinence or its worsening was reported12. There were minimal postoperative wounds. However, it shouldn’t be denied that in some cases, an excessive dilatation of the fistula to insert the fistuloscope, the risk of missing other secondary tracts or the internal opening itself and also, the risk of thermal damage by the electrode happened. Therefore, improvements of the technique and further studies are required. Thus, their results were in line with our findings.

Our results showed that this was a safe procedure as there was early recovery, minimal surgical wound and pain. This showed that patient can do normal life activities again in few days after treatment. Literature review showed similar findings when treated their patients with VAAFT thus in-line with our findings13. In our study, males (77%) were the major victims of anal fistula while only 23% females had that disease. Similarly, another study showed that only 12.5% females had anal fistula14. Thus our enrollment of males as majority in present study was similar to many other studies.

One study showed that the median follow-up was after 7.4 months15. Only one minor form of incontinence (limited soiling) was observed and no complications occurred. The use of a novel diode laser source and a radial emitting laser probe in addition to conventional surgery was a very promising new technique in sphincter-preserving anal fistula repair. The observed healing rate was high. Due to minimized trauma to the sphincter muscle, there were good short-term functional results without observable procedure-related complications. Paradoxically, follow-up after treatment in our study was at 6 weeks. However, in above mentioned study primary healing was seen in 09 out of 11 fistulas.

Limitations: Single centre study with financial constrains. Lack of genetic workup was a limitation too.

CONCLUSION

It was concluded that this new surgical technique has advantages like sphincter-saving with small surgical wounds. However, fistuloscopy identifies secondary tracts or chronic abscesses.

Authors’ contribution: MA: Overall supervision, write up and literature review. MJS: Statistics application, analysis literature review, help in write up, MAK & AU: Literature review help in write-up.

Conflict of interest: None

Funding: None

REFERENCES
