Best Evidence Topic

Incidence of anal incontinence among patients with anal fissure treated with Botox injection versus lateral sphincterotomy

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ARTICLE INFO

Keywords: Anal fissure Botox Incontinence Lateral sphincterotomy

ABSTRACT

A best evidence topic has been constructed using a described protocol. The three-part question addressed was: In patients with anal fissure, which technique has a lower incidence of anal incontinence: Botox injection or lateral sphincterotomy? The best evidence showed that Botox injection has lower incidence of incontinence.

1. Introduction

This BET was designed using a framework outlined by the International Journal of Surgery [1]. This format was used because a preliminary literature search suggested that the available evidence is of insufficient quality to perform a meaningful meta-analysis. A BET provides evidence-based answers to common clinical questions, using a systematic approach of reviewing the literature.

2. Clinical scenario

A general surgical trainee is consenting a 25 year old female with recurrent anal fissure for examination under anaesthesia plus either Botox injection or lateral sphincterotomy, the patient is wondering which technique provides a lower incidence of incontinence.

3. Three-part question

[In patient with anal fissure] [Which techniques has lower incidence of incontinence] [Botox injection or lateral sphincterotomy]?

4. Search strategy

A. Medline ® 1946 to May 2021 and Embase 1974 to May 2021 using OVID interface:

[Anal fissure OR fissure-in-ano] AND [incontinence OR anal incontinence] AND [botulinum toxin OR botulinum toxin injection OR BOTOX] AND [sphincterotomy OR lateral sphincterotomy OR lateral internal sphincterotomy].

B. Medline ® using PubMed interface:

[Anal fissure OR fissure-in-ano] AND [incontinence OR anal incontinence] AND [botulinum toxin OR botulinum toxin injection OR BOTOX] AND [sphincterotomy OR lateral sphincterotomy OR lateral internal sphincterotomy]

Exclusion criteria:

Unpublished studies, case reports, letter to the editors, studies in children less than 16 years studies not in English.

5. Search outcome

A total of 67 articles were identified after the removal of duplicates. Of these 51 articles were excluded on the basis of title and abstract. After
The procedure of choice for anal fissure that is not responding to conservative treatment is lateral sphincterotony (LIS) [2]. LIS has been reported as the mainstay treatment for anal fissure. When the fissure is visible, the anal sphincter fibers are then divided up to the level of the proximal extent of the anal fissure [2].

**6. Result**

The aim from this review is to assess the best studies which compare the incidence of anal incontinence among those patients undergoing Botox injection vs LIS for anal fissure.

Two studies in our review showed no statistically significant difference in the incidence of anal incontinence between LIS and Botox injection these studies were conducted by De Robles et al. [7] and Çakır et al. [8]. Although both study included relatively large sample size, they are lacking randomization. In contrast, the other three studies we have included, which are all randomized control trials showed a statistically significant lower of incidence of anal incontinence among the Botox injection group in comparison to the LIS group [9–11], the only limitations in these trials is lack of multicentricity, relatively small sample size.

### 8. Clinical bottom line

According to the above articles, the best evidence showed a statistically significant lower incidence of anal incontinence among Botox injection group of patients in comparison to the LIS group.

### 9. Limitation of this review

1. Small sample size in most articles
2. Short period of follow in most articles.
3. Lack of multicentric trials

### Sources of funding

Non.

### Ethical approval

Not applicable.

### Consent

Not applicable.
Authors contribution

RI: conducted the literature search and wrote the paper. AAR: assisted in the literature search and SA: assisted in writing of paper. AA: assisted in the literature search. AM: design the table and help in editing of writing.

Trial registry number

Not applicable.

Guarantor

Rashid Ibrahim.

Declaration of competing interest

Non.

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