Operative procedures for anal fissure

NICE has developed the Cochrane Quality and Productivity topics to help the NHS identify practices that could be significantly reduced or stopped completely, releasing cash and/or resources without negatively affecting the quality of NHS care. Each topic has been derived from a Cochrane systematic review that has concluded that the evidence shows that the practice is harmful or ineffective and should not be used, or that there is insufficient evidence to support widespread use of the practice.

Unless otherwise stated, the information is taken with permission from the Cochrane systematic review.

NICE summary of Cochrane review conclusions

Anal fissure is an ulcer of the skin that lines the anus, causing pain on defecation. A number of procedures have been trialled for treatment of this condition, including manual anal stretch and sphincterotomy. Manual anal stretch has a higher risk of fissure persistence than internal sphincterotomy and a significantly higher risk of minor incontinence than sphincterotomy. This Cochrane review therefore suggests there is no evidence to support the ongoing use of this procedure.

While surgical treatment of anal fissure is effective, non-surgical management includes ensuring stools are soft and easily passed and providing pain relief. Non-surgical management is outlined in a Clinical Knowledge Summary (CKS). Botulinum toxin A injection, topical glyceryl trinitrate, topical diltiazem hydrochloride are non-surgical treatment options that may reduce pain on defecation. Evidence summaries on these treatment options can be found on the NICE website. Links are provided on page 3 in the section 'Relevant NICE guidance and Products'.

The 'Implications for practice' section of the Cochrane review stated:

'Manual anal stretch should be abandoned in the treatment of chronic anal fissure in adults. For those patients requiring surgery for anal fissure, open and closed partial lateral internal sphincterotomy appear to be equally efficacious. It is less clear whether posterior sphincterotomy should be performed as the primary treatment of anal fissure. For the greatest chance of cure, the sphincterotomy should be performed to the level of the dentate line or to achieve an anal canal aperture of 30 mm. This rigorous measure of sphincterotomy appears to be associated with a diminished risk of incontinence when compared to previous reports'.

Details of Cochrane review

Cochrane review title

Operative procedures for fissure in ano (Review).

Citation

Nelson RL, Chattopadhyay A, Brooks W, Platt I, Paavana T, Earl S. Operative procedures for fissure in ano. Cochrane Database of Systematic Reviews 2011, Issue 11. Art. No.: CD002199. DOI: 10.1002/14651858.CD002199.pub4.

When the review content was assessed as up to date

30 March 2011.

Quality and productivity category

Right care.

Relevant codes	OPCS	ICD10	HRG
	H54.1	K60.1 - K60.2	FZ23.Z

Programme budget:

Problems of the gastro intestinal system.

Evidence

Relevance to the NHS

An updated Cochrane review compared the usefulness of surgery for anal fissure against the efficacy of other surgical procedures and evaluated how likely the different treatments result in complications.

Anal fissure is an ulcer of the skin that lines the anus. It usually causes pain when defecating which can last up to two hours (Goligher et al, 1975). The aetiology of typical or benign fissure is not clear and there are no established methods for fissure avoidance. The most reliable conclusion in typical fissures is spasm of the internal anal sphincter, so severe that the pain caused by fissure is thought to be due to an inadequate blood supply to the region (ischaemia) according to Schouten et al (1994).

Relief of the spasm has historically been surgical and includes anal stretch, open lateral sphincterotomy, closed lateral sphincterotomy, posterior midline sphincterotomy and in some instances dermal flap coverage of the fissure.

Four randomised controlled trials of 406 patients were included in the 2011Cochrane update. All trials comparing a minimum of two different operative techniques were reviewed. The Cochrane Central Register of Controlled Trials and MEDLINE (1965-2011), Medline (Pubmed) and Embase were searched up to 2011.

A total of 2056 patients were included in the review. 27 studies described 13 different operative procedures which included closed lateral sphincterotomy, open lateral internal sphincterotomy, anal stretch, balloon dilation, wound closure, perineoplasty, length of sphincterotomy and fissurectomy. Two new procedures, sphincterolysis and controlled intermittent anal dilatation are comparable to anal stretch.

Nelson (1999) found that the results of comparisons between these techniques are variable. There are not enough patients enrolled in all study types to answer questions about efficacy (observer bias). With the non-randomised studies the reports are also subject to selection bias. Morbidity due to surgery, primarily incontinence, was originally thought to be very rare (Abcarian et al,1980), but more recent data has found it to be higher than originally thought (Garcia et al, 1996). Therefore, it is important to choose the most appropriate surgical treatment.

Results show that, for those patients requiring surgery, open and closed partial lateral internal sphincterotomy appear to be equally effective. More research is required to assess the effectiveness of posterior internal sphincterotomy, anterior levatorplasty, wound suture and papilla excision. Bilateral internal sphincterotomy shows potential but further research is required into its efficacy.

Manual anal stretch should be abandoned as a treatment for chronic anal fissure in adults.

Relevant NICE guidance and products

NICE advice [ESUOM14] (June 2013). Chronic anal fissure: botulinum toxin type A injection.

NICE advice [ESUOM7] (March 2013). Chronic anal fissure: 0.2% topical glyceryl trinitrate ointment.

NICE advice [ESUOM3] (January 2013). Chronic anal fissure: 2% topical diltiazem hydrochloride.

Other accredited guidance

Clinical Knowledge Summaries (Nov 2012). Anal fissure

Potential productivity savings

Estimate of current NHS use

- Approximately 3,100 finished consultant episodes of anal fissures were recorded in 2013 by the Health and Social Care Information Centre (2012-13 [a]).
- There were approximately 600 procedures for anorectal anal stretch (manual dilation of anus) performed in the NHS in 2013. Of these 340 were on people aged 19 years or older and 270 on people aged less than 19 years, as recorded by the Health and Social Care Information Centre (2012-13 [b]).

Level of productivity savings anticipated

- The outpatient tariff for minor anal procedures is £148. The combined day case/inpatient tariff is £603. Alternative procedures such as lateral sphincterotomy of anus share the same tariff with minor anal procedures.
- There are no savings to commissioners from stopping manual anal stretch as people are likely to undergo an alternative procedure. However, providers may save money from reduced procurement of dilators – although the saving could be minimal because the dilators are reusable. Prices of dilators vary depending on size, for example, a box of 10 Prelude dilator 4f 16cm 035 cost £36.49 (NHS Supply Chain, accessed 2015).

Type of saving

- There are no savings in cost or resources expected.

Any costs needed to achieve the savings

- There is potential for additional equipment and training costs if a different technique of anal dilatation or sphincterotomy is used.

Other information

- CCGs commission operative procedures for anal fissure. The providers are NHS Trusts and private hospitals.

Potential impact on quality of NHS care

Impact on clinical quality

Replacing manual anal stretch with open or closed partial lateral internal sphincterotomy is expected to improve the quality of care delivered to patients. Manual anal stretch has a higher risk of fissure and minor incontinence compared to either type of internal sphincterotomy.

Impact on patient safety

Replacing manual anal stretch with internal sphincterotomy for adults with chronic anal fissure is expected to improve patient safety as there is less risk of fissure reoccurrence.

Impact on patient and carer experience

It is anticipated that patient and carer experience will improve if manual anal stretch is replaced with internal sphincterotomy.

Likely ease of implementation

Time taken to implement

It is assumed that stopping anal stretch and replacing it with internal sphincterotomy can be achieved quickly (within 3 months).

Healthcare sectors affected

Affects one department or team.

Stakeholder support

Likely to achieve good buy-in from key influencers.

References

Abcarian H (1980). Surgical correction of chronic anal fissure: results of lateral internal sphincterotomy vs. Fissurectomy -- midline sphincterotomy. Dis Colon & Rectum. Dis Colon Rectum; 23:31–36

Garcia-Aguilar J, Belmonte C, Wong WD, et al (1996). Open vs closed sphincterotomy for chronic anal fissure: long term results. Dis. Colon & Rectum; 39:440–443

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NHS Supply Chain NHS Cat. Search products
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Schouten WR, Briel JW, Auwerda JJA (1994). Relationship between anal pressure and anodermal blood flow. Dis Colon Rectum; 37: 664–669

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The Health and Social Care Information Centre (Nov 2013[b]). Hospital Episode Statistics for England. Inpatient statistics, 2012-13. Main procedures and interventions: 4 character code and description (see page 1 for relevant codes).