NHS
Pan Mersey
Area Prescribing Committee

BOTULINUM TOXIN TYPE A for chronic anal fissure

The Pan Mersey Area Prescribing Committee recommends prescribing a maximum of TWO COURSES of botulinum toxin type A injection in the treatment of chronic anal fissure which has not healed despite a minimum course of at least 8 weeks of topical management.

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Botulinum toxin type A is recommended as a treatment option in adults and children with chronic anal fissure that has not healed despite at least 8 weeks of topical management.

The preferred first line topical product is 0.4% glyceryl trinitrate (GTN) ointment, the only licensed non-surgical option available in the UK. Unlicensed topical 2% diltiazem cream and unlicensed topical 0.2% GTN ointment are alternatives if there has been a partial response to topical 0.4% GTN but intolerance, such as headache, has necessitated discontinuation.

For patients who proceed to treatment with botulinum toxin type A and whose fissure has not healed after one course of injections, alternative options for on-going management should be considered. However, where the specialist determines there has been a partial response to the first course, a second course may be considered particularly for patients where surgery is less suitable.

To assist with healing and prevention of recurrence of fissures, patients should be encouraged to eat a high fibre diet and use laxatives if necessary.

The body of evidence suggests that botulinum toxin type A is less effective than surgery, no better or worse than topical GTN ointment (mostly 0.2%) or topical isosorbide dinitrate (unlicensed) and no better than placebo or lidocaine at healing anal fissure. The MHRA has warned healthcare professionals about the rare but serious risk of toxin spread when using all types of botulinum toxin.[1,2]

Lateral sphincterotomy is regarded as the current 'gold standard' treatment, resulting in fissure healing in more than 90% of patients. However, a significant minority of patients experience incontinence. Up to 30% of patients have difficulty controlling flatus, 20% soiling and 3-10% have episodes of leakage after surgery[4]. This compares to 10% and 5% respectively having temporary incontinence to flatus, and to liquids and faeces following treatment with botulinum toxin type A[3].

Note: Patients who are not eligible for treatment under this statement may be considered on an individual basis where their GP or consultant believes exceptional circumstances exist that warrant deviation from the rule of this policy. In this situation, follow locally defined processes.

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Effectiveness

Botulinum toxin type A induces a relative hypotonia, thus reducing resting anal canal pressure. This effect lasts for 2–3 months until acetylcholine re-accumulates in the nerve terminal.

Two systematic reviews and a 4 further randomised controlled trials (RCTs) form the body of evidence.[3] There were fewer than 100 participants in most of the trials with a follow-up of less than 6 months. Botulinum toxin type A injection was found to be less effective than surgery, no better or worse than topical glyceryl trinitrate (mostly 0.2% ointment) and no better than placebo or lidocaine at healing anal fissure. The overall healing rate after one course of injections was 77% in the Cochrane review (doses and follow-up periods varied).[3]

A systematic review and meta-analysis identified 6 RCTs that compared botulinum toxin type A injection with topical nitrates. Botulinum toxin is associated with fewer side effects than topical nitrates but there is no difference in fissure healing or recurrence.[3]

The Association of Coloproctology of Great Britain and Ireland (ACPGBI) Position Statement recommends botulinum toxin type A when topical management has failed.[4]

Safety

Botulinum toxin type A is contraindicated in:

- hypersensitivity to the active substance or to any of the excipients.
- infection at the proposed injection site(s).

The MHRA issued a warning in 2007 which was reiterated in March 2013 regarding the rare but serious risk of toxin spread with all botulinum toxin products.[1,2]

See the Summary of Product Characteristics for the respective brand of botulinum toxin type A for full details.[5]

Cost

Botulinum toxin type A drug cost per vial is £138. An estimated day case tariff is £617. Maximum annual cost £1,510

Glyceryl trinitrate ointment 2 x 30g (8 weeks treatment) 0.2% = £39.96, 0.4% = £78.60

Diltiazem 2% ointment 2x 30g = £61.78

Diltiazem 2% cream 2 x 30g = £123.92

Patient factors

- Injection is usually given in an operating theatre with the patient under general or regional anaesthesia.
- Patients should be warned about the signs and symptoms of toxin spread, such as muscle weakness and breathing difficulties, and advised to seek medical attention if they experience such symptoms.

Temporary incontinence to flatus occurs in approximately 10% of patients, and to liquids and faeces in approximately 5% of patients[3]. Patients should be warned regarding the risk of transient anal incontinence associated with botulinum toxin.

Prescribing information

Where more than one botulinum toxin type A product is available, the least costly should be used, taking into account drug acquisition cost, anticipated administration costs, and licensed indications. Note different brands are not dose equivalent.

Botulinum toxin type A is unlicensed for the treatment of anal fissures. The dose most likely to be used locally is up to a maximum of 100 units given either as a single injection or two injections either side of the sphincter muscle.

Implementation notes

Botulinum toxin type A should be prescribed and administered by specialists experienced in the administration of injections to the internal anal sphincter. Treatment and monitoring should be retained by the specialist.

References

1. MHRA Drug Safety Update December 2014. Accessed 13/10/20 Botulinum toxin products: rare but serious risks
2. NICE ESUOM14. June 2013: Chronic anal fissure: botulinum toxin type A injection. Accessed 13/10/20 NICE
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5. Summary of Product Characteristics Botox 100 units. Last updated 22/11/19. Accessed 13/10/20 SPC
6. NHS Business Services Authority DM+D. Accessed 13/10/20 NHSBSA - dm+d Browser
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