

**NOVEL USE OF POVIDONE IODINE IN FISSURE-IN-ANO**

Dear Sir,

Fissure-in-ano is a frequently encountered condition in surgical practice, in which the exact aetiology is not clearly known. A tight anal sphincter and hard faeces may be the contributing factors. Nitroglycerine<sup>(1)</sup> and calcium channel blockers are currently used as the first-line agents, while adjuvant stool softeners and local anaesthetic ointments provide pain relief. If all conservative measures fail, the patient may be offered a chemical or surgical lateral internal sphincterotomy.<sup>(2)</sup> Botulinum toxin injection is usually administered in chemical sphincterotomy. Surgical sphincterotomy may lead to sphincter relaxation and carries a risk of faecal incontinence. We report a novel use of povidone iodine in three patients whose acute fissure-in-ano was cured.

A 38-year-old man, who had no other medical problem, suffered from three episodes of acute fissure over a period of two weeks. Clinical examination confirmed the presence of an acute posterior midline anal fissure. The patient was treated with two applications of topical povidone iodine (Betadine ointment 10%, Molnlycke Health Care, Bedfordshire, UK). His symptoms settled, and the subsequent review revealed no recurrence at one year after treatment.

A 48-year-old healthy man was diagnosed with a recurrent fissure-in-ano of one year's duration. The patient was initially given lactulose and nitroglycerine for three months. However, his symptoms failed to improve and a lateral sphincterotomy was recommended. On clinical examination, the patient was found to have a single posterior midline fissure. After repeated application of povidone iodine ointment 10% twice a day for five days, all his symptoms resolved. At the one-year follow-up, the patient remained symptom free.

An eight-month pregnant woman with severe perianal pain was diagnosed with an acute fissure-in-ano. It was impossible to conduct a digital rectal examination in this patient. After one application of povidone iodine ointment at bedtime, all her symptoms settled. The patient's review at one year revealed no sign of recurrence.

Povidone iodine is commonly used for skin cleaning and as a topical antibacterial agent. The use of povidone iodine in fissure-in-ano has not been previously reported. There is one report in the literature of iododerma after the use of an iodine solution for sitz bath.<sup>(3)</sup> We do not know the mechanism of action of povidone iodine in fissure-in-ano. It may be the bactericidal, lubricating or some other unknown effects in povidone iodine, or a combination of factors present in the povidone iodine ointment. We had used povidone iodine ointment rather than the solution as the former was greasy and water soluble. A pilot study is currently underway to prove the effectiveness of povidone iodine in the treatment of fissures. If it is shown to be beneficial, then a prospective randomised controlled trial would be required to compare its efficacy against topical nitroglycerin, calcium channel blockers, botulinum toxin and surgical sphincterotomy.

Yours sincerely,

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