

Case Report

Equipment Failure in Varicose Vein Surgery Leading to Retained Foreign Body

Hansraj Riteesh Bookun*, Andrew Cheng**, David North***

*MBBS (Melb), BMedSci (Melb), **PMBBS (Melb), BMedSci (Melb), ***MBBS FRACS, The Geelong University Hospital, Ryrie Street, Geelong, VIC 3220, Australia.



Hansraj Riteesh Bookun is currently a Vascular Surgery Registrar at the University Hospital Geelong in Australia. He will be formally starting his training under the Royal Australasian College of Surgeons in February 2016 at the Royal Melbourne Hospital. His other interests include automotive racing and karate. He has spent most of his teenage years actively competing in karate but has now slowed down to once a year at international level."

Corresponding author - Hansraj Riteesh Bookun (riteesh.bookun@gmail.com)

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Abstract

We describe here the first known reported case of breakage of a disposable venous stripper in the context of varicose vein surgery. Although the current climate in the treatment of varicose veins and superficial venous disease favours sclerotherapy and endovenous ablative therapies, open venous surgery still remains a useful option in skilled hands. The purpose of this report is to highlight that the equipment used in these open venous approaches is not failsafe and that careful inspection of venous strippers should be carried out prior to their use. Additionally, the possibility of equipment failure might need to be discussed with the patient during the consent process.

Key Words: Varicose Vein, Venous Stripper, Foreign Body, Equipment Failure

Introduction

Chronic venous insufficiency is a condition of high prevalence which poses a significant burden of disease on patients and health care organisations¹. The current practice guidelines favour sclerotherapy and endovenous thermal ablation as first line treatment in the management of most cases of superficial venous disease. However, open venous surgical approaches still serve a useful purpose when applied judiciously and performed by expert hands. Such surgery for the treatment of varicose veins is common and safe, with high ligation and stripping of the great saphenous vein (GSV) being the principal components of these classical operations^{2,3}. Previously reported complications have encompassed wound issues, neurological deficits or altered sensation, lymph leak, vascular injury and deep venous thrombosis⁴. We describe here the first reported case of a retained foreign body due to the breaking of a disposable venous stripper during stripping of the GSV.

Case presentation

A 68 year old lady with primary bilateral varicose veins on the background of hypertension underwent high ligation and stripping of her left GSV which was unfortunately complicated by a retained foreign body in her left medial thigh due to the head of the vein stripper (the "olive") breaking during the stripping process. A routine left groin incision had been made and dissection to the saphenofemoral junction (SFJ) was uncomplicated. All tributaries and the SFJ were ligated. The distal left SFJ was then exposed at the ankle and a Codman disposable stripper was passed from ankle to groin. When attempting to pull the stripper through the

groin incision, the stripper broke and its body was retrieved without vein or olive.

Efforts to localise the olive by palpation and by intraoperative on-table ultrasound scanning were unsuccessful. Her groin incision was closed at that time (3/0 running vicryl to fascia and subcuticular 3/0 monocryl to skin) and compressive dressings were applied to her left lower limb. Simple post-operative analgesia was prescribed and she received a prophylactic dose of 40mg of enoxaparin sodium at night. An incident report was completed. The patient was discharged on the next morning after open disclosure and counselling.

She underwent repeat surgery 28 days later to remove the impalpable foreign body after prior imaging by computed tomography to minimise dissection (Fig1).



Fig 1 - CT Leg showing olive in left thigh

The olive was removed from the belly of her left gracilis muscle without complication and the surgical site was closed in layers. The patient was asymptomatic in the interval between her surgeries.

Conclusion

To our knowledge, this is the first case report of equipment failure in the setting of varicose vein surgery. A material data sheet was not available for the particular brand of stripper used in this case. Surgeons and manufacturers should be aware that high tensile forces can be developed during the stripping process and that current strippers are not failsafe. Perhaps, the possibility of equipment failure of such nature should be discussed with the patient during the consent process preceding surgery. Additionally, we recommend that each stripper be carefully inspected for any defect prior to being used.

Consent

Written informed consent was obtained from the patient for publication of this case report. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

Competing interests

The authors declare that they have no competing interests.

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Steatopygia or Potbelly?

Where do you want to store your excess fat – hips or belly? Even if it gives you a waddling gait, better to have it in the hips. Belly fat is bad news even in individuals of normal weight with normal BMI. It is linked to high cholesterol, inflammation, heart disease, stroke and diabetes. Results of a new study, in which 15000 adults were followed up for a mean period of 14 years, indicate that central obesity is associated with worst long-term survival. Normal weight adult males with belly fat were found to have 87% increased risk of fatal outcome during the study period. Even compared to obese individuals, the former came out worse. Even normal weight women with belly fat did not fare any better. Fat is the last thing one should try to accumulate. But if you are determined to do so, have it around your hips! (Published online Nov. 10 in the *Annals of Internal Medicine*).

- Dr. K. Ramesh Rao