## Inferior vena cava filters in trauma patients: who is responsible for their removal?

Dominik Baschera, Jonathan K Sebunya and René Zellweger

**To the Editor:** The prophylactic use of inferior vena cava filters (IVCFs) in trauma patients for whom anticoagulation is contraindicated has markedly increased over the past few years. Their need for caval filtration is usually only transient, and once the risk of venous thromboembolism is deemed to be minimal, it would seem appropriate that IVCFs be retrieved. However, a large number of IVCFs remain in situ, due to either failure of retrieval or lack of follow-up. We observed a case that touches on both of these two major problems associated with IVCF retrieval.

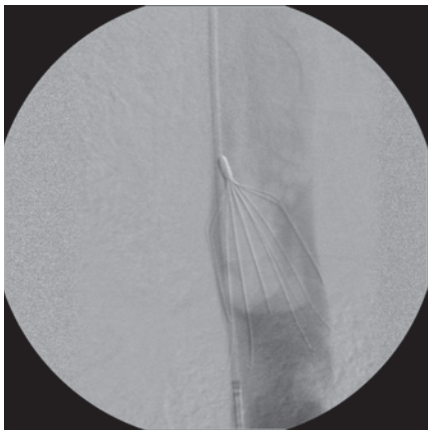
A 34-year-old man received a prophylactic IVCF after he had sustained severe pelvic fractures, several undisplaced spinal fractures and a splenic laceration in a motorbike accident. He was deemed to be at high risk of venous thromboembolism, and immediate prophylactic anticoagulation was contraindicated because of his pelvic and splenic injuries. The scheduled IVCF retrieval, 8 weeks after insertion, failed due to technical difficulties. A large clot between the struts of the IVCF (Figure) meant further withdrawal attempts were deemed too dangerous. The patient was informed that he had two options:

- if the filter remained in situ, he would possibly need lifelong oral anticoagulation; or
- the IVCF could be surgically removed.

Soon after this, the patient was discharged with instructions to continue oral anticoagulation.

About 5 months later, at a follow-up consultation with the orthopaedic surgeon about his injuries, the patient expressed his concern about the IVCF and especially about the anticoagulation. He was taking it for no other indication than the IVCF. The radiologist who had inserted the IVCF was contacted, and subsequently removed it without any complications.

In the case described here, an initial retrieval attempt was thwarted by filter tilt and a large clot burden. After discharge, the patient was lost to follow-up with respect to the IVCF. Fortunately, this was addressed by one of the specialists involved in management of the patient's other problems. Without this intervention, the patient may have ended up with the filter permanently in situ, with its attendant risks, and an unwarranted lifetime of anticoagulation. When filters have a significant clot burden, anticoagulation can help dissolve this to the point at which retrieval can be effected safely.[1]



*The clot, occluding nearly the whole lumen of the inferior vena cava (IVC), is seen as a radiolucent area between the IVC filter struts as the contrast agent passes by.* ◆

This case highlights the need for appropriate follow-up after IVCF insertion. Various studies have outlined different follow-up strategies, some using a protocol drawn up in a multidisciplinary team setting,[2] others designating a key person (usually the clinician who inserted the filter) to undertake this task.[3,4] Both strategies have been shown to reduce the number of patients lost to follow-up.

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2 Ko SH, Reynolds BR, Nicholas DH, et al. Institutional protocol improves retrievable inferior vena cava filter recovery rate. *Surgery* 2009; 146: 809-814.
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4 Kaufman JA, Kinney TB, Streiff MB, et al. Guidelines for the use of retrievable and convertible vena cava filters: report from the Society of Interventional Radiology multidisciplinary consensus conference. *J Vasc Interv Radiol* 2006; 17: 449-459. ❑

## Restricted career paths for overseas students graduating from Australian medical schools: legal and policy considerations

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**To the Editor:** We welcome the thoughtful analysis from Elkin and Studdert on international students missing out on internship places.[1] Given the impending shortage of available internships in Australia, this is of considerable interest to the over 500 international students who graduate each year.

Sydney Medical School (University of Sydney) should be commended for explicitly discouraging international students' expectations of internship.[2] Sadly, this is an isolated example. We agree with the authors that universities have an ethical obligation to ensure this information is adequately conveyed to current and prospective international students. Education policymakers and medical school administrators should be forthcoming with vital information on the future of training for international students in Australia. The Australian Medical Students' Association is currently developing a comprehensive information booklet, which we will distribute to prospective international students. Among other details, this will clearly outline the issue.

However, the issues raised by Elkin and Studdert are not confined to international students. The authors observe that the recent health ministers' communiqué only guaranteed internship to students in Commonwealth-supported places.[3] This not only excludes international students, but also local fee-paying students at private universities and those in state-funded places.

The authors argue that international students have no legitimate expectation that they will be provided with an intern place on graduation, given the "clear" statements from the federal government. However, there has been no similar guidance for local private university or state-funded students. Do these students have a legitimate expectation of internship? One could argue that state-funded students do, given the funding bodies are the same ones that will also provide their internships. While Australian permanent residents and citizens currently have first or second priority for internships,