

ALTHOUGH LIFE-THREATENING COMPLICATIONS ARE RARE, THE TRUE INCIDENCE OF VASCULAR-ACCESS RELATED BLEEDING AFTER ATRIAL FIBRILLATION ABLATION IS MUCH HIGHER THAN HAS PREVIOUSLY BEEN REPORTED

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Introduction Catheter ablation (CA) is increasingly seen as an effective treatment for symptomatic atrial fibrillation (AF), particularly when antiarrhythmic drug therapy has failed. To perform CA several large-bore sheaths must be placed percutaneously into central veins. To prevent thromboembolism patients receive intravenous heparin±systemic anticoagulation with warfarin or an alternative agent. Perhaps unsurprisingly, the most commonly encountered complications from CA are vascular, with published rates of 2–5%. It is feared that some access complications may occur after hospital discharge, and so the overall incidence may be higher. There are no studies with systematic screening to include the post-discharge period.

Methods We prospectively studied consecutive cases undergoing CA at a single high-volume centre in the UK using a dedicated proforma to record vascular complications at the time of the CA and at hospital discharge. This was followed up 1 month later with a bespoke postal questionnaire.

Results 143 consecutive patients underwent CA for AF over 5 months. An anatomical approach was used as standard. Where possible all sheaths were placed into a single, usually right femoral, vein. All patients received intra-procedural heparin to maintain an ACT of >300 s and 70% were performed on uninterrupted warfarin (with most of the rest receiving post-op dabigatran). Bleeding complications were classified according to BARC criteria (See table) and the time of reporting (Pre or post discharge).

In hospital data was collected on all patients and questionnaire was returned by 77%. 32% of patients had vascular access complications, including 19 (13%) with minor (BARC 1) bleeding, 30 (21%) with a BARC 2 complication requiring further medical intervention, and 2 (1.4%) patients with BARC 3 bleeds. A further 11 (8%) patients suffered arterial puncture without sequelae and/or prolonged groin pain. 22 of the 51 bleeding complications (43%) were only detected on post-discharge screening. There were no fatal bleeds (BARC 5) or BARC 4 (CABG-related) bleeds. Most (26) of the BARC 2 bleeds were managed with additional haemostasis although 2 required further imaging or resulted in repeat hospitalisation.

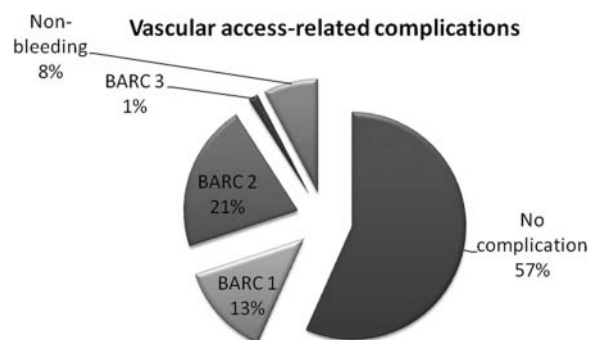


Figure 1

Table 1

BARC grade	Description
0	No bleeding
1	Bleeding that is not actionable and does not cause the patient to seek unscheduled medical care
2	Any overt, actionable sign of haemorrhage (more than would be expected) that does not meet the criteria for Grades 3–5 but requires transfusion
3	Overt bleeding with haemoglobin drop of at least 3g/dL and/or requiring transfusion (3a); iY 5 g dl causing tamponade or requiring transfusion
4	CABG-related bleeding
5	Fatal bleeding

Discussion The incidence of vascular access complications following CA for AF is much higher than has been previously reported although major complications are thankfully rare. Physicians should consider techniques that may reduce this risk, such as vascular ultrasound and we are currently evaluating this in the next phase of this study. Patients should be counselled about the true risks as part of the informed consent process. Trials must comprehensively screen for bleeding complications if they are to avoid under-reporting.