patient lifestyle should be considered in the context of endovascular therapy involving the femoropopliteal segment.

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Reply

We agree with Diaz and Tamashiro that the nature of individual popliteal artery flexions and patient lifestyle should be considered when recommendations such as limiting knee flexion beyond 90° are being made. This recommendation was made on the assumption that stent breakages could occur as a result of repetitive stress on the device with subsequent occlusion, as was the case in two of our patients. Both the total stented length and length of the overlap zone were not identified as predictors for failure in our series. However, the exact location of the end of the overlap zone as related to the upper margin of the patella was not investigated as a distinct factor.

Diaz and colleagues'[1] findings of the arterial hinge point, as developed during dynamic angiography being situated at the upper margin of the patella, contribute to the better understanding of the flexion mechanism of the popliteal artery in patients with symptomatic peripheral atherosclerosis. However, bending zones in vessels containing an aneurysm appear to be different, affected by the extent of calcifications, and the location and diameter of the popliteal aneurysm, as shown on anteroposterior and lateral radiographs routinely made during follow-up.

In our series, stent breakage occurred in both cases at the end of an overlap zone located at the suggested hinge point at the level of the medial supragenual condyle, but also at the distal borderline of the aneurysm (Fig). Hypothetically, it may be anticipated that the closer the aneurysm extends to the bending zone of the knee, the greater repetitive mechanical stress on the device will be at that point.

We now choose the positioning of stent-grafts more carefully, trying to keep overlap zones away from the edges of the aneurysm as well as away from the bending zone of the knee. An additional lateral view with the knee in flexion performed during preoperative angiography may increase accuracy of the procedure even more so as suggested by Diaz and colleagues. However, limitations to achieve maximal accuracy are dictated by the available lengths of the stent-grafts.

Finally, cultural aspects may be important but did not play a role in our predominantly Caucasian study population.

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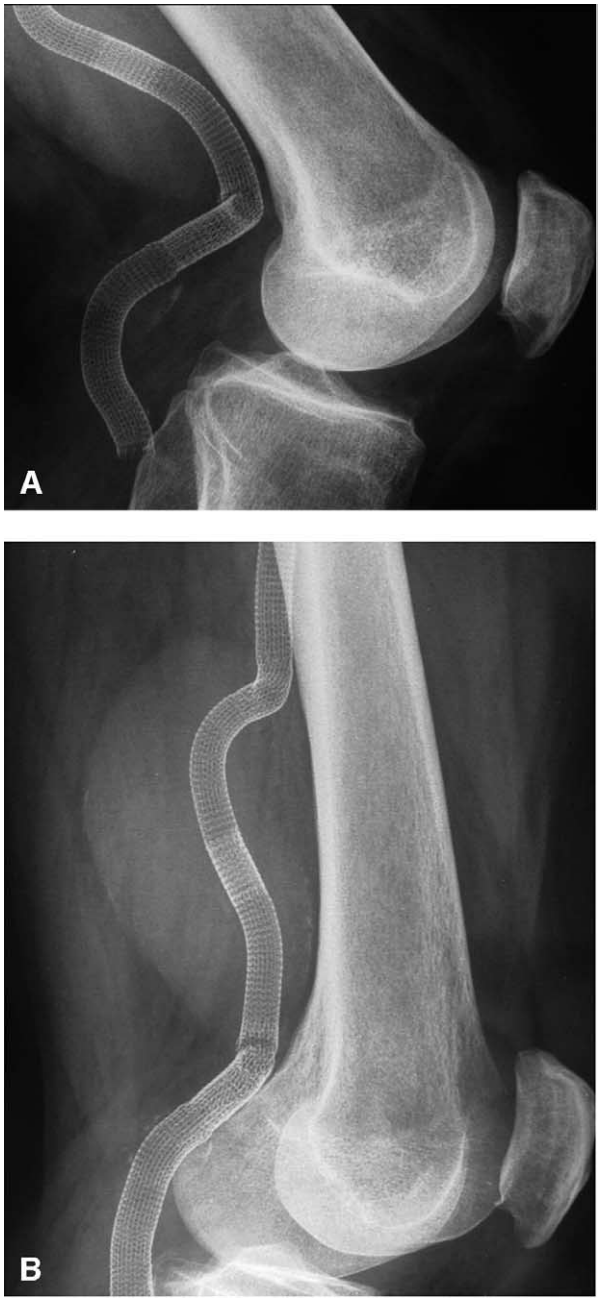

Lateral views of the knee in flexion **(A)** and in extension **(B)** show breakage of the stent material as observed in one of the two patients, leading to occlusion in both cases. The occlusion occurred at the end of an overlap zone between two stent-grafts, which also happened to be at the distal border of the aneurysm, and in the bending zone of the knee.

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