



Very late drug-eluting stent thrombosis in superficial femoral artery involving common femoral artery

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Received: 12 October 2017 / Accepted: 13 November 2017 / Published online: 22 November 2017
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A 69-year-old male complained of bilateral intermittent claudication and he was implanted bare-metal stents (BMS) in both superficial femoral arteries (SFA) with associated jailed deep femoral arteries (DFA). Bilateral intermittent claudication recurred due to in-stent re-occlusion of BMS (Fig. 1a), and three Zilver PTX stents were subsequently implanted from both common femoral arteries (CFA) to SFA with jailed DFA (Fig. 1b). He complained of acute-onset bilateral leg rest pain at 14 months after drug-eluting stent implantation, even though he was undergoing dual anti-platelet therapy (aspirin 100 mg/day with clopidogrel 75 mg/day). Both ankle-brachial index (ABI) was unmeasurable because ankle pulse waves were almost flat. An angiogram (Fig. 1c) showed bilateral complete occlusion extending from the CFA to the distal SFA. He was unable to undergo surgical repair due to the presence of active interstitial pneumonia. Aspiration and balloon angioplasty with

5.0 mm diameter balloon via the left radial artery using 4.5 French long guiding sheath led to adequate flow and symptom resolution. ABI improved to 0.68 on the right side and to 0.84 on the left side, respectively. Stenting in the proximal SFA with jailed DFA has been shown to achieve better long-term patency than in the absence of jailed DFA [1]. However, these data were evaluated using BMS. Some reports [2, 3] have shown delayed vascular healing and persistent inflammation after Zilver PTX implantation compared to BMS. The rate of stent thrombosis after Zilver PTX implantation was reported to be 3.0% at 12 months [4], but long-term safety has still been unclear. When we implant Zilver PTX drug-eluting stents in proximal SFA with jailed DFA, there may be a higher risk of SFA occlusion involving CFA. Avoiding implantation of Zilver PTX in proximal SFA with jailed DFA may be a better strategy for prevention of thrombotic occlusion in the chronic phase.

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Fig. 1 **a** Angiogram before Zilver PTX stents implantation. Both superficial femoral arteries were completely occluded from the ostium with preserving flow of the deep femoral arteries. Thin white arrows show the proximal edges of bare metal stents. **b** Angiogram after Zilver PTX stents implantation. Proximal edges of bilaterally implanted Zilver PTX stents were located in common femoral arteries with associated jailed deep femoral arteries. Thin white arrows show the proximal edges of Zilver PTX stents. **c** Angiogram at 14 months after Zilver PTX stents implantation. Angiogram shows complete occlusion in both-side superficial femoral arteries involving common femoral arteries proximal to the edge of Zilver PTX stents. Thick white arrows show the proximal ends of thrombotic occlusion in both common femoral arteries, and thin white arrows show the proximal edges of Zilver PTX stents

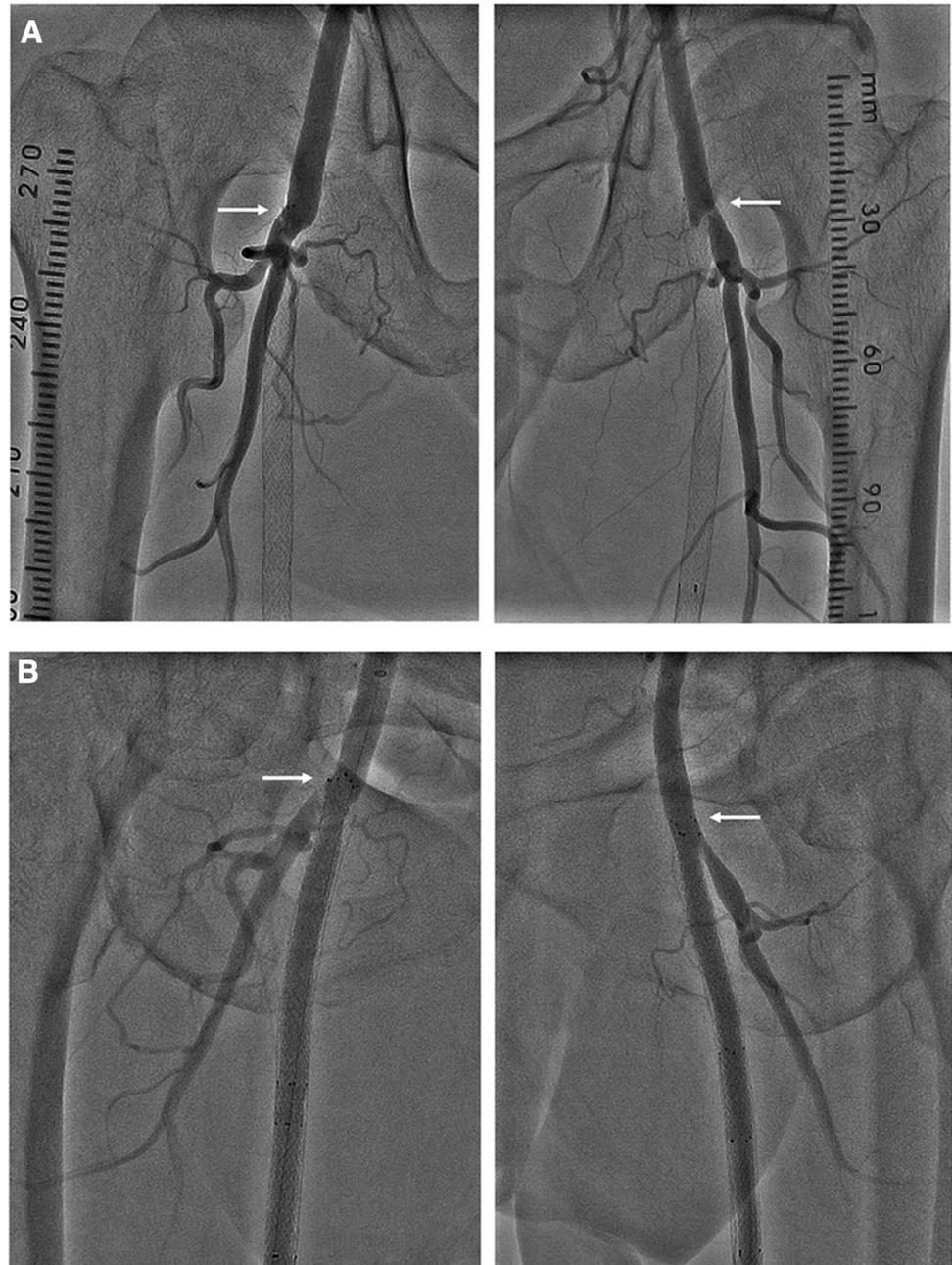
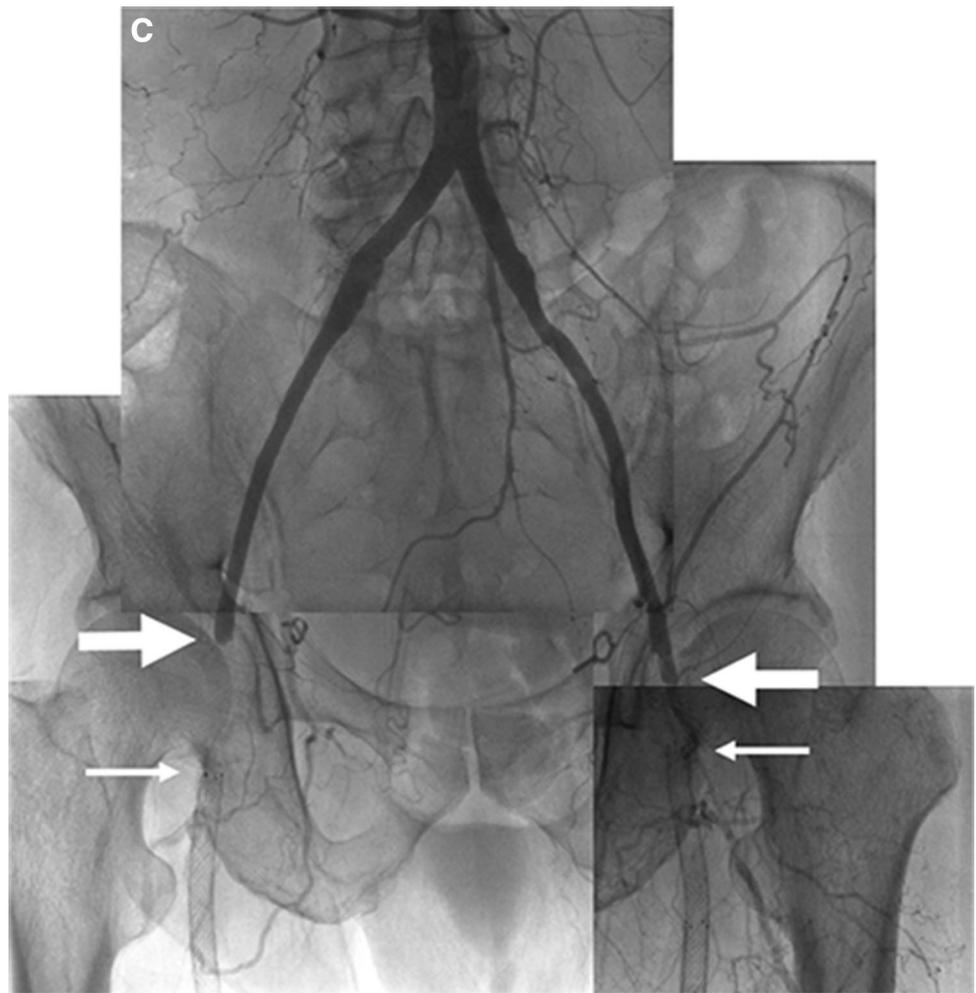


Fig. 1 (continued)



Compliance with ethical standards

Conflict of interest All authors have no conflict of interests.

Ethical statement The authors complied with human studies guidelines of Tokai University, and obtained informed consent from the patient.

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