Acute life-threatening limb ischaemia from common femoral artery thrombosis following total hip arthroplasty surgery: A rare complication

Sir,

We report the case of a 52-year-old female admitted in the Intensive Care Unit following total hip arthroplasty (THA) under general anaesthesia whose admission was warranted due to intraoperative hypotension secondary to blood loss. She had developed persistent pain in the left lower limb after about 6 hours which the caregivers were initially attributing to post-operative pain. A closer examination revealed absent peripheral pulses. A bedside Doppler and an urgent computerized tomographic angiogram was done, which showed complete absence of flow in the left common femoral artery [Figure 1]. She underwent a successful limb saving emergency revascularization procedure.

Vascular complications after THA are rare but pose significant risks to limb as well as life. High degree of suspicion is required for early detection and intervention, which warrants close perioperative neurovascular monitoring. THA is a commonly performed procedure with an overall complication rate of about 6%.[1] The incidence of vascular complications is even lower amounting to 0.2%–0.3%,[1,2] which include bleeding, thrombosis and rarely pseudoaneurysm.[3] In a large case series by Calligaro et al.,[3] the vascular complications in THA and total knee arthroplasty patients were very low, and the detection rates in the early post-operative period were low even in high-volume centres. The case reports of arterial thrombosis following hip arthroplasty are still rarer.[4,5] Although THA is a commonly performed procedure in Asian countries including India, only one such vascular complication is reported in the literature, prompting suspicion of selective reporting or publication bias as the probable reason.[6] The ischaemic pain could easily be mistaken for post-surgical pain and hence delay the diagnosis even in high-volume centres.[3] Epidural analgesia also could mask rest pain and numbness due to ischaemia and hence delay the diagnosis in such patients. Surgical dressings, anti-thrombotic pumps and stockings frequently cover the operated extremity which might again discourage a closer examination and evaluation by the caregiver in the post-operative settings. The likely cause for thrombosis in this case could be due to injury to vessel wall during retraction or acetabular revision of the damaged medial wall.

In our case report, patient’s presence in a critical care setting following intraoperative events helped in the early diagnosis of the arterial insufficiency and limb salvage. Close postoperative neurovascular monitoring of arthroplasty patients especially those with risk factors for vascular complications such as vascular disease, bony abnormality, trauma during acetabular revision, trauma to the artery, use of retractors or exothermic reaction from the cement might help early detection and prevention of further complications. Although such close monitoring would not be possible in patients admitted post-operatively in the ward, an increased awareness among caregivers will promote early detection and intervention.

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Conflicts of interest
There are no conflicts of interest.

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