Malaysian Orthopaedic Journal 2023 Vol 16, Supplement A

Double Jeopardy - Bone Cement Extrusion Of Knee Joint With Pulmonary Cement Embolism Post Proximal Femur Endoprothesis

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INTRODUCTION:

Bone cement is commonly used in arthroplasty and spine surgery. However, it is associated with complications such as local leakage, pulmonary cement embolism and bone cement implantation syndrome which are hypotension, hypoxemia, cardia arrythmia and cardiac arrest.

REPORT:

We are reporting a rare case of bone cement extrusion into the knee joint with concurrent pulmonary cement embolism. A 54 years old lady, had post traumatic chronic osteomyelitis of right femur. She underwent stage surgeries which including wound debridement, resection of right proximal femur and cement spacer. After completion of antibiotic and culture clearance, she proceeded cemented proximal femoral endoprosthesis. She developed severe pain over right knee, desaturated under room air with oxygen saturation 89-92% and persistent tachycardic of 120-130 beats per minute. Her electrocardiogram showed right bundle branch block. Computed tomography showed left ascending and descending pulmonary arteries cement embolism. Her knee radiograph showed opacities within knee joint. She underwent knee arthrotomy and cement removal of right knee was done. A left thoracotomy, left lower lobectomy and lingulectomy done few days later. Currently, patient able to ambulate with walking frame and without oxygen support.

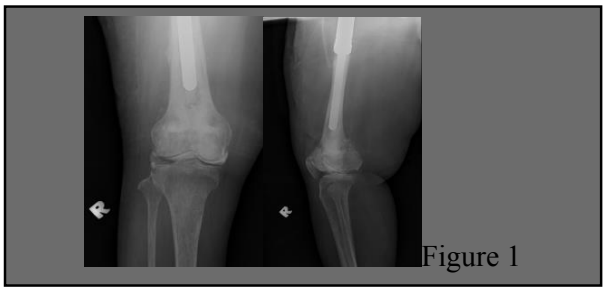

Figure 1: anteroposterior and lateral view of right knee showed opacity within knee joint.

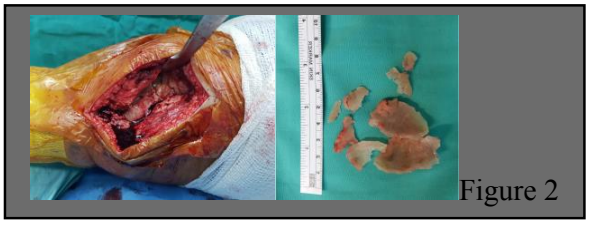

Figure 2: intraoperative picture of right knee with cement extrusion

CONCLUSION:

Cement extrusion into the knee joint with symptomatic pulmonary cement embolism post proximal femoral endoprosthesis are rare. High index of suspicion is important for successful treatment for patient.

REFERENCES:

1. Jacob R et al., Pulmonary cement embolism is frequently observed but not a contributing factor for death in patients with cemented total hip and knee arthroplasty: a postmortem study; Int Orthop. 2022; 1225–1232
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