

A case report of cryosurgery treatment for bone metastasis in the pelvis

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INTRODUCTION:

Pelvic bone metastases are a growing issue in the field of orthopedic surgery. Cryosurgery for bone metastasis was reported to reduce pain, and its utility as a curative treatment for metastasis is well-known. Here we report a patient with pelvic metastases treated with cryosurgery.

CASE REPORT:

A 44-year-old woman with underlying parotid gland carcinoma underwent a left total parotidectomy and a radical neck dissection in November 2022. However, the patient developed left sided hip pain which radiated to the left buttock upon weight bearing.

It was determined by a bone scan and CT scan of the pelvis that lytic metastatic lesions were present in the left pelvis. Pelvic lesions were detected in Zone 1 and 2 of the Enneking classification. Patient classified as Class 3 based on Capanna and Campanacci.

Following meticulous procedure, the affected bone was excised, and it was submerged in liquid nitrogen solution for 20 minutes. It was let to thaw for 30 minutes. The acetabular defect reconstruction, acetabular component of the THR, and plate of the pelvis were completed "externally" before the components were inserted in the pelvis and final fixation was done.

Post operatively, the patient did not develop any acute complications. Patient was advised to refrain from weight bearing ambulation for 6 weeks. Currently, the patient is ambulating with the help of a walking stick and is doing it without pain.

CONCLUSION:

Autologous bone graft treated with liquid nitrogen in pelvic bone metastases surgery is a viable option for patients and can provide good outcome.

REFERENCES:

1. Marcove RC, Miller TR. The treatment of primary and metastatic localized bone tumors by cryosurgery. Surg Clin North Am.
2. Igarashi K, Yamamoto N, Shirai T, et al. The long-term outcome following the use of frozen autograft treated with liquid nitrogen in the management of bone and soft-tissue sarcomas. Bone Joint J. 2014;96-B (4):555-61.

Figure 1: intra-op images

Figure 2: Post-op Xray

