AB249. Palliative forequarter amputation in osteosarcoma—a case study

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Background: Forequarter amputation (FQA) involves surgical excision of the upper extremity, scapula and clavicle. With neoadjuvant chemotherapy and surgical advances, limb salvage surgery has become the predominant surgical intervention for osteogenic sarcoma. FQA is performed today in only ~5% of primary bone sarcomas. Its use in palliation for intractable pain in advanced malignancy remains controversial, however some authors argue FQA improves overall quality of life in those with limb dysfunction.

Methods: We present the case of a 38-year-old right hand dominant male with intractable pain secondary to Stage 4A osteosarcoma of his right proximal humerus to highlight the role of palliative FQA. The patient presented in October 2018 with a painful right shoulder after starting a new exercise routine. Over 8 months, he developed a progressively enlarging painful right shoulder swelling. Percutaneous biopsy, staging computerized tomography (CT) and magnetic resonance imaging (MRI) confirmed an 18 cm high grade chondroblastic osteogenic osteosarcoma of the right proximal humerus with pulmonary metastases. The tumour extended into the glenohumeral joint and encased neurovasculature, outruling limb salvage surgery. Prognosis was estimated as less than 6 months.

Results: Despite chemotherapy and optimal analgesia, he had persistent intractable pain, motor impairment and lymphoedema which required his pain-free arm to carry the pathological arm. Eleven months after initial presentation, FQA was performed to provide pain relief and return the use of his non-pathological arm.

Conclusions: Palliative FQA is a radical surgical intervention, though perceived as drastic, can significantly improve quality of life in advanced osteosarcoma with intractable pain and limb dysfunction.

Keywords: Forequarter amputation (FQA); osteosarcoma; pain; palliative

doi: 10.21037/map.2020.AB249

Cite this abstract as: Roden Y, McQuail P, O’Toole G. Palliative forequarter amputation in osteosarcoma—a case study. Mesentery Peritoneum 2020;4:AB249.