Osteosarcoma in Patient with Previous Retinoblastoma In Malaysia; A Double Whammy

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INTRODUCTION:

Osteosarcoma is a primary malignant tumor and characterized by the production of osteoid by malignant. Recently, new genetic information has shown association between retinoblastoma(Rb) and osteosarcoma.Whether being treated by radiation or not patients with Rb, there is a higher risk of developing sarcomas as a second malignancy[1]. We present a case of patient with history of Rb who has completed treatment and developed osteosarcoma in Malaysia.

REPORT:

A 8 year-old boy with underlying retinoblastoma had bilateral enucleation done and completed chemotherapy before
sustained left proximal tibia after a trivial fall. He denies constitutional symptoms.
Clinically, swelling over the proximal tibia, with skin changes and tenderness on palpation. Range of movement knee was limited. Xray left tibia showed wide zone of transition lytic lesion over the proximal tibia with periosteal reaction. No remarkable findings on skeletal survey. MRI revealed expansile bony lesion with break of cortex involving epiphyses metaphyses suggestive of osteosarcoma. He was later referred to an oncology centre for further treatment.

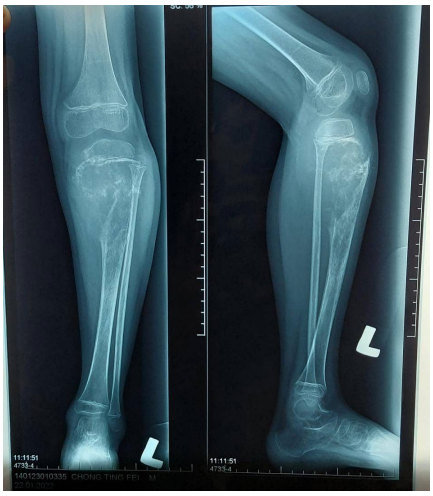

Figure 1: AP and Lateral view of the Left tibia

CONCLUSION:

This rare case presentation highlights that this patient may have mutation of the (Rb1) gene as he has had an uncommon bilateral retinoblastoma which affects approximately per 100000 and of 50 % is bilateral[2].This also predisposed him to a second malignant neoplasm of the lower extremities[3]. In his case, this is considered a sporadic case as he has no family history of this disease and denies any previous radiotherapy as radiotherapy is known to cause osteosarcoma even though the incidences are rare (0.01-0.03)[4]
This case report highlight the importance of having a high suspicion for a second neoplasm for all retinoblastoma patients in clinical practice. The presence of a genetic study for this patient would have been helpful in risk stratifying patients with retinoblastoma.

REFERENCES:

1. Koshy M, et all; 2005
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