AlSugair F et al., OMICS J Radiol 2018, Volume 7
DOI: 10.4172/2167-7964-C1-022

Role of 18F-FDG PET/CT in staging and response to therapy assessment for primary parotid adamantinoma-like Ewing's sarcoma: First case report

AlSugair F, Naim, Salloum R, Abouzeid M and Khan Z A
King Faisal Specialist Hospital & Research Centre, Kingdom of Saudi Arabia

Aim: Extra-skeletal Ewing's sarcoma is very rare tumors. Its adamantinoma-like novel histological variant is even rarer and has only been reported a few times involving the skeleton. Extra-skeletal occurrence of this variant has only been reported once before. We present the first case where 18F-FDG PET/CT was used both in staging and response to treatment assessment.

Method & Material: This 30-year-old man initially presented to local general hospital with few months history of right parotid swelling. A parotid tumor was diagnosed on CT and the mass was resected. Histopathology was initially reported as adenocarcinoma. Rapid recurrence and growth of the tumor led referral to the tertiary care hospital. Histology review and additional Fluorescence *In Situ* Hybridization (FISH) test confirmed the diagnosis of adamantinoma-like Ewing's' sarcoma. The patient was offered VAIA chemotherapy (combined chemotherapy protocol) with radiation therapy. Imaging included PET/CT scans pre-chemotherapy and after 4 cycles. It was decided that if good response to chemotherapy was demonstrated, surgical resection could be offered.

Result: Pre-chemotherapy PET/CT showed a large 8.5×8 cm markedly FDG avid (SUV max 11.5) right parotid tumor. It reduced to 5.3×3 cm after 4 cycles of chemotherapy with significant reduction in FDG avidity (SUV max 3.9). PET/CT did not show any other disease site. Patient also had resection in addition to radiation therapy.

Conclusion: 18F-FDG PET/CT is a useful technique for staging and response to therapy assessment in primary parotid adamantinoma-like Ewing's sarcoma and helps in making clinical management decisions.

faisal.a.ashour@gmail.com

Notes: