Management of a Novel Parotid Collision Tumor

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ABSTRACT

Educational Objective: At the conclusion of this presentation, the participants should be able to define “collision tumor”, describe a novel collision tumor of the parotid, and discuss the complexity in managing similar unexpected operative findings.

Objectives: 1) To present a novel collision tumor of the parotid gland: concurrent squamous cell carcinoma and small cell lymphoma; and 2) to analyze the operative approach to collision tumors.

Study Design: Case report.

Abridged Case History: A 75 year old male with left ear lobe melanoma was concurrently found to have a right parotid mass. Pre-operative CT showed a right parotid mass and all FNA attempts were non-diagnostic. The patient was taken to the operating room for excision of the left ear melanoma, as well as for right superficial parotidectomy and right modified neck dissection. The operation was complicated by frozen pathology suggestive of a novel collision tumor.

Results: The final histopathology revealed components of both squamous cell carcinoma and small cell lymphoma in both the parotid tumor and ipsilateral cervical lymph nodes. The combination of a parotid collision tumor containing squamous cell carcinoma and small cell lymphoma has never been described and poses a diagnostic and therapeutic challenge. This particular tumor combination is especially complex as the therapeutic approach to each tumor is distinct: squamous cell carcinoma is most often approached surgically, whereas lymphoma is primarily treated with chemotherapy. Ultimately, each tumor must be treated independently and consideration should be given to treating the more lethal component, though the timing and method of such treatment is still a path yet uncharted.

Conclusions: Given the rarity of collision tumors, it is difficult to establish a standardized treatment plan, however, perhaps through future reporting of similar cases better therapeutic recommendations can be made.

CASE REPORT

A 75 year-old male presented with a left ear lobe melanoma and was concurrently found to have a right parotid mass and bilateral cervical lymphadenopathy. CT scan of the neck confirmed a 2 centimeter right parotid mass containing both solid and cystic components, as well as cervical lymphadenopathy in levels 2-5 with multiple 2-3 cm lymph nodes. Fine needle aspiration (FNA) of the parotid mass was consistent with carcinoma, whereas FNA samples from the cervical lymph nodes were nondiagnostic. The patient was taken to the operating room for excision of the left ear melanoma, as well as for right superficial parotidectomy and right modified neck dissection.

After the left ear melanoma was excised with negative margins and no evidence of neural or vascular invasion, attention was turned to the right parotidectomy and cervical lymphadenectomy. An intra-operative frozen section pathologic analysis was performed on the parotid mass, level II lymph node and level IV lymph node, and all three samples demonstrated poorly differentiated carcinoma as well as regions of monotonous lymphocytic proliferation. The pathologist commented that there was a possibility of a co-localized tumor, and the exact diagnosis would require formal staining and further pathologic evaluation. Given the unclear pathology on frozen section, the right neck dissection was modified to excise all bulky adenopathy without sacrificing vital nerves or vessels.

The final histopathology revealed components of both squamous cell carcinoma and small cell lymphoma in both the parotid gland and lymph nodes. Adjunctive chemotherapy and radiation was planned.

REFERENCES