

Case Report

Nevus cell aggregate or metastatic carcinoma in cervical lymph node

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Abstract : Nevus cell aggregate in lymph node is a rare benign lesion, but this lesion in lymph node may be disturbing and could possibly lead to an erroneous diagnosis as metastatic malignant tumor. This paper reports an interesting histologic findings in which perplexed to make a final diagnosis as either metastatic carcinoma or nevus cell aggregate in a cervical lymph node.

Nevus cell aggregate has been described in several papers¹⁻⁹⁾ in the capsules and trabeculae of the lymph nodes. The findings of these nevus cells are occasionally or frequently misdiagnosed as metastatic malignant tumor, it is important for the oral pathologists to be aware that benign nevus cells can be found in lymph nodes of the oral lesion. Failure to recognize such an occurrence could conceivably lead to an erroneous diagnosis and, hence, to unwarranted therapy. It is for this reason that I wish to report a case in which perplexed to make a final diagnosis as either metastatic carcinoma or nevus cell aggregate in a cervical lymph node in a 51-year-old male patient who has been suffering from squamous cell carcinoma of the maxilla.

Case

A 51-year-old Japanese male consulted Clinic of the 1st Oral Surgery of Iwate Medical University Dental Hospital with a history of "swelling of the right upper molar region with pain" of about 6 months' duration. Clinical examination revealed a irregular-shaped, indurated and large ulcer (42mm by 30mm in measure) in his right upper molar area, and floor of ulcer perforated into maxillary sinus in part. Several cervical lymph nodes were also palpable. Biopsy specimen revealed well differentiated squamous cell carcinoma (grade I in WHO's classification, Fig. 1). Irradiation, chemotherapy, extirpation of tumor including neighboring tissues and radical neck dissection were

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performed.

Pathologic Findings

One of twelve cervical lymph nodes, which were removed by radical neck dissection, revealed evidence of cancer metastasis. Cut surface of this lymph node showed gray-white in colour, firm in consistency and partial hemorrhage. Microscopically, metastatic squamous cell carcinoma was poorly differentiated one without keratinization (grade III in WHO's classification, Fig. 2). Furthermore, small cell aggregate was noted in the thin fibrous capsule of the lymph node (Fig. 3). These small cells arranged in lobular pattern. Each cell was round to ovoid in

shape with homogeneous and eosinophilic cytoplasm, round nucleus and indistinct nucleolus (Fig. 4). The cell outlines were relatively sharp. Since the over-all appearance, there are some doubt to make a final diagnosis as either metastatic carcinoma or nevus cell aggregate in the capsule of the cervical lymph node.

Discussion

The histologic findings of nevus cell aggregate in a lymph node may be annoyed. A benign diagnosis of this aggregate is suggested by the fact that the nevus cells are well differentiated, uniform and few mitosis. Moreover, nevus cell aggregates are localized in the fibrous capsulae

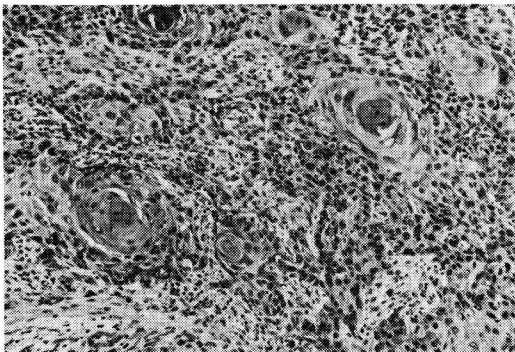


Fig. 1 : Well differentiated squamous cell carcinoma, biopsied from the right upper molar region.

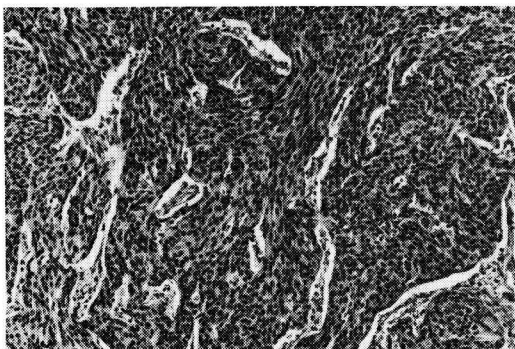


Fig. 2 : Metastasized squamous cell carcinoma showing poorly differentiated one in a cervical lymph node.

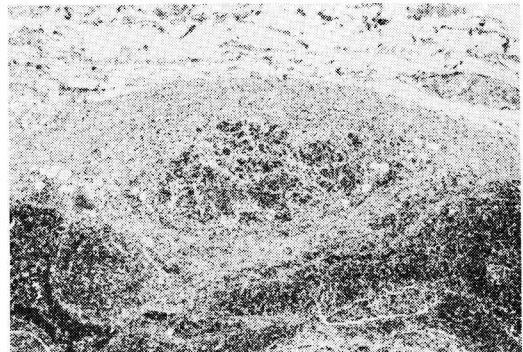


Fig. 3 : Small cell aggregate in fibrous capsule of the cervical lymph node.

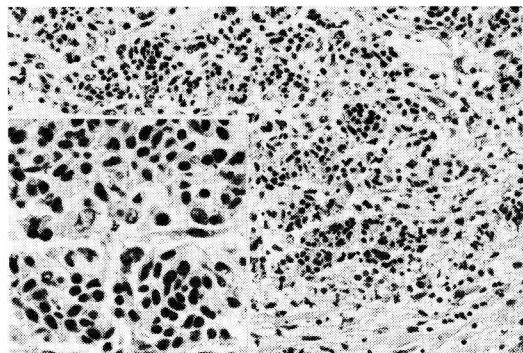


Fig. 4 : High magnification of small cell aggregate, consisted of round to ovoid and uniform small cells with lobular arrangement.

or trabeculae of the lymph nodes, and it is not found in neither marginal sinus nor other parenchyma^{1-4,6-9)}, while McCarthy et al.⁵⁾ found an extremely rare case in which the trabeculae were widened by nevus cell aggregates and a few nests were present in the parenchyma of the lymph node.

Although nevus cell aggregate in the lymph node is histologically similar to those in cutaneous nevi, the mechanism by which such cells reach the lymph node is unknown. A possible origin is that they represent an abnormality of migration of neural crest cells during embryogenesis³⁾. Another likely theory is that nevus cells in lymph node arise as a result of benign metastases⁵⁾.

Ridolfi et al.⁸⁾ noted nevus cell aggregate in 3 of 909 patients (3 of 17,504 lymph nodes) who had undergone dissection of axillary lymph nodes for carcinoma of the breast. Furthermore, Ridolfi et al.⁸⁾ found a high frequency (3.0 per cent) in patients undergoing dissection of lymph nodes for

malignant melanoma. McCarthy et al.⁵⁾ reported a frequency of 6.2 per cent, and the majority of their patients had dissection of lymph nodes for malignant melanoma.

Although detailed frequency of nevus cell aggregate in the cervical lymph nodes has not been examined, they are rare, based on routine pathological examination of materials of radical neck dissection and review of the literatures. As reported by others^{3,5,8,9)}, the nevus cell aggregate in the lymph nodes of patients with malignant tumor showed no similarity to the cell of the tumor. But irradiation to cervical area was performed in present case, it was important that differential diagnosis between metastatic carcinoma with degenerative change and nevus cell aggregate. Since, in degenerative process, necrobiotic cancer cells display following appearance; chromatolysis or pyknosis, reduction in size of cytoplasm, disappearance of intercellular bridges, etc.

内容自抄：その頻度は稀ではあるが、リンパ節の被膜あるいは小柱内に nevus cell の集簇巣が認められることがあるとの報告がある。このリンパ節における nevus cell の由来については未だ明らかではないが、病理組織診断にあたって転移性悪性腫瘍との鑑別が重要となってくる。本稿で紹介した症例は51才男性の上顎癌（扁平上皮癌）の転移のみられたものである。転移のみられた頸部リンパ節の被膜中に小細胞の集簇巣が認められ、これまでに報告されている nevus cell の集簇巣に類似した所見を呈していた。しかし、本症例では治療のために大量の放射線照射がなされており、転移した腫瘍細胞の変性像との異同が問題となった。この様な所見の鑑別診断は更に検討を要する点である。

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