



Case Report

Maxillary Verrucous Carcinoma Coincident With Cervical Lymph Node Metastasis of Colon Adenocarcinoma

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Cervical lymph node metastasis is an extremely rare event in oral verrucous carcinoma. Isolated cervical lymph node metastasis of colon cancer is also rare. This article describes a case of maxillary verrucous carcinoma accompanied by colon adenocarcinoma that metastasized to a cervical lymph node in a 69-year-old Japanese woman. During preoperative evaluation for maxillary verrucous carcinoma, enlarged cervical lymph nodes and colon cancer were suspected by positron emission tomography. Colonoscopy with biopsies confirmed primary colon adenocarcinoma. Left radical neck dissection, partial maxillectomy, and full-thickness skin graft to the mucosa of the upper lip were performed before treatment of colon adenocarcinoma. Cervical lymph nodes showed metastasis from colon adenocarcinoma, and right hemicolectomy was performed. This is the first case report of synchronous oral verrucous carcinoma and colon adenocarcinoma with cervical lymph node metastasis.

Key words: Verrucous carcinoma – Adenocarcinoma – Cervical lymph node metastasis – Double cancer

Lymph node metastasis of oral verrucous carcinoma is rare. Kraus and Perez-Mesa¹ reported a rate of 3.8%. On the other hand, 36.6% of patients with colon adenocarcinoma show metastases to regional lymph nodes.² In some cases, cancer cells invade the thoracic duct

and eventually reach the left supraclavicular region.³

This article describes an extremely rare case of maxillary verrucous carcinoma accompanied by cervical lymph node metastasis from a coincident colon adenocarcinoma.

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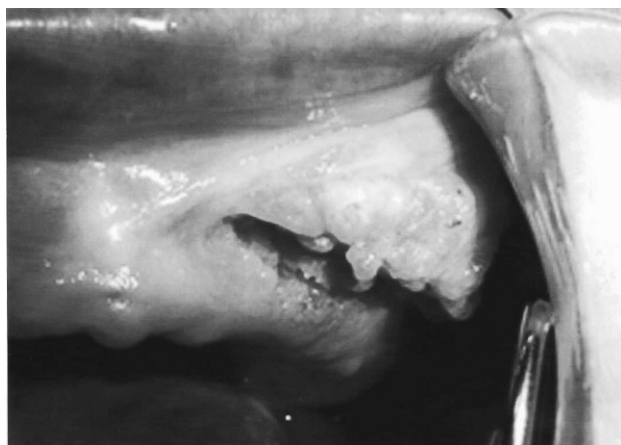


Fig. 1 Preoperative intraoral examination found a cauliform hard tumor of the left upper gingiva sized 17×24 mm.

Case Report

A 69-year-old Japanese woman, complaining of swelling in her left upper gingiva, was referred to the Department of Oral and Maxillofacial Surgery, Shimane University Hospital. The patient had noticed a tumorous lesion in the left upper gingiva 2 months before being referred to the hospital. The patient's past medical history was unremarkable except for hypertension. She had neither smoked nor drunk alcohol.

Intraoral examination revealed a cauliform tumor of the left upper gingiva, measuring 17×24 mm (Fig. 1). The left submandibular and deep cervical lymph nodes were enlarged. Enhanced computed tomography (CT) and magnetic resonance imaging

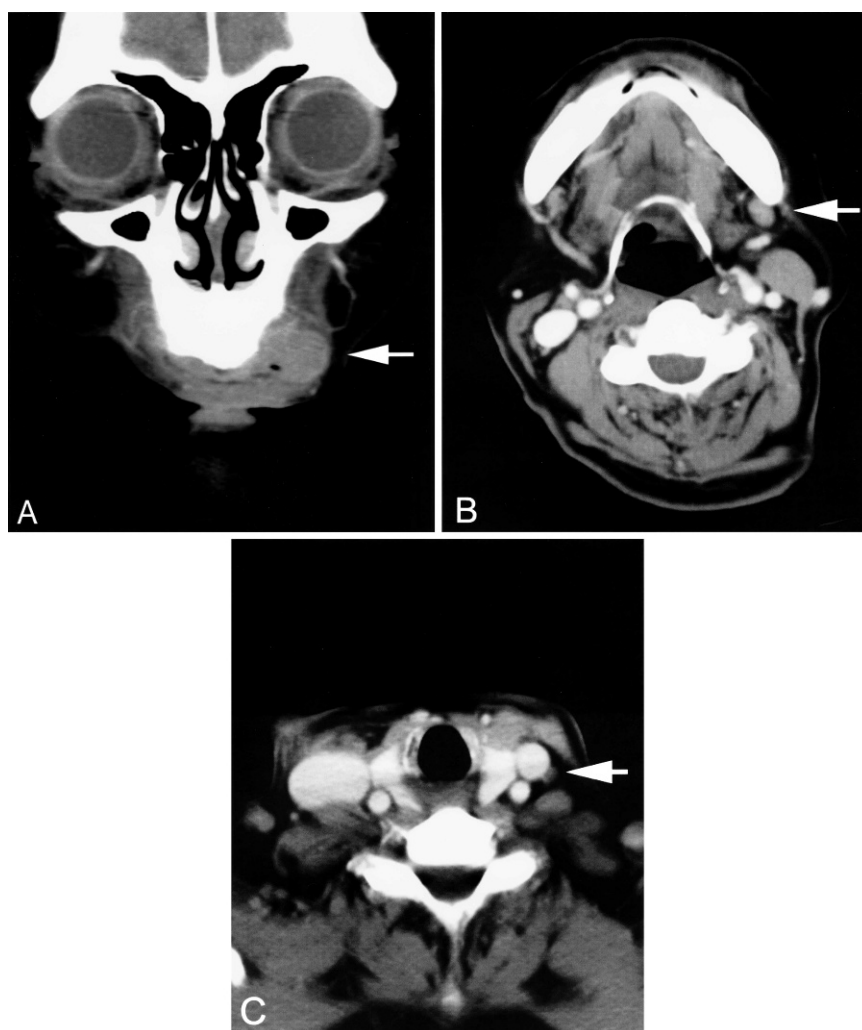


Fig. 2 (A) Preoperative enhanced computed tomography image showing a 17×24 mm mass in the left maxillary gingiva (arrow; frontal section). (B) Preoperative enhanced computed tomography image showing a 10-mm lymph node in the left submandibular region (arrow; axial section). (C) Preoperative enhanced computed tomography image showing 8.3-mm lymph node in the left deep cervical region (arrow; axial section).



Fig. 3 Histopathologic findings of the left maxillary gingiva showing elongation of rete ridges and marked epithelial hyperplasia with a rough papillary surface. H&E (×40).

showed a 17 × 24 mm mass of the left maxillary gingiva (Fig. 2A). A 10-mm left submandibular lymph node and an 8.3-mm deep cervical lymph node were also detected (Fig. 2B, C). A biopsy specimen of the maxillary gingiva showed histopathologic findings of typical verrucous carcinoma (Fig. 3). Aberrant accumulations in the left maxilla and lower digestive tract were detected by positron emission tomography (PET-CT) (Fig. 4). PET-CT showed no uptake in the neck. Colonoscopy with biopsy from an ulcerative lesion revealed an ulcerated, moderately differentiated adenocarcinoma of the ascending colon (Fig. 5).

Based on the clinical findings, our preliminary diagnosis was double cancer: left upper gingival verrucous carcinoma (cT2N2bM0, stage IVA) accompanied by metastasized cervical lymph nodes and ascending colon adenocarcinoma without regional lymph node metastases (cT3N0M0, stage IIA). An operation of the left upper gingiva and cervical lymph node region was scheduled before treatment for ascending colon carcinoma. Left radical neck dissection, partial maxillectomy, and full-thickness skin grafting to the mucosa of the upper lip were performed under general anesthesia.

Results

On pathologic examination, the left upper gingival lesion was found to be a differentiated verrucous carcinoma without the typical features of ordinary

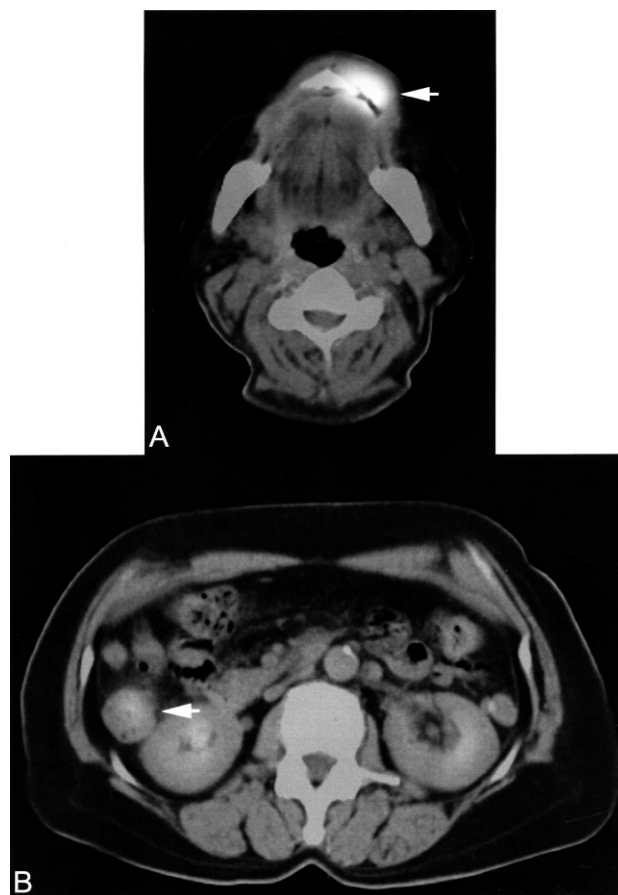


Fig. 4 (A) Aberrant accumulations to left maxilla on a positron emission tomography scan (arrow; axial section). (B) Aberrant accumulations in the lower digestive tract on a positron emission tomography (arrow; axial section).

squamous cell carcinoma such as marked pleomorphic nuclei (Fig. 6A). The only one enlarged deep cervical lymph node of level IV showed proliferation of adenocarcinoma cells (Fig. 6B). The other 20 lymph nodes were free of tumor cells.

A laparoscopic right hemicolectomy was performed. On pathologic examination, high lymphatic invasion, slight vessel invasion, and regional lymph nodes metastases were identified. Two of 30 regional lymph nodes showed metastases. No perineural involvement was present. The pathologic diagnosis was oral verrucous carcinoma pT2N0M0, stage I and colon adenocarcinoma pT3N1bM1a (lymph), stage IVA. Modified folinic acid, fluorouracil, and oxaliplatin therapy (mFOLFOX) was performed in the Department of Gastroenterology, and the patient was followed in our department. Her post-treatment course was uneventful.



Fig. 5 Histopathologic findings of the ascending colon showed proliferation of cancer cells in a cribriform pattern. H&E ($\times 200$).

Discussion

Verrucous carcinoma is a low-grade variant of oral squamous cell carcinoma that does not show the typical features of common squamous cell carcinoma. Because lymph node metastasis is an extremely rare event in verrucous carcinoma, the most common treatment is first surgical resection of the primary lesion.⁴ However, 20% of verrucous carcinomas tend to show a transition to ordinary squamous cell carcinoma.⁴ The frequency of cervical lymph node metastasis in oral squamous cell carcinoma is estimated to be 45.5%.^{5,6}

In the present case, cervical lymph node metastasis of verrucous carcinoma was suspected. However, adenocarcinoma metastasized to the cervical lymph node was revealed histopathologically. To our knowledge, this is the first case report of a combination of coincident maxillary verrucous carcinoma and colon adenocarcinoma with cervical lymph node metastasis without other distant metastasis.

Of colon adenocarcinoma cases, 36.6% show regional lymph node metastases adjacent to the lesion. Disease progression is indicated by involvement toward the para-aortic lymph nodes.² Cancer cells may invade the thoracic duct and finally reach the left supraclavicular region, known as Virchow's node.⁷ However, metastasis of colon cancer to the supraclavicular region is uncommon.^{5,8,9} In the present case, cancer cells were believed to have spread to a deep cervical lymph node from Virchow's node.

In our patient, no other metastases of colon adenocarcinoma were revealed except for regional lymph

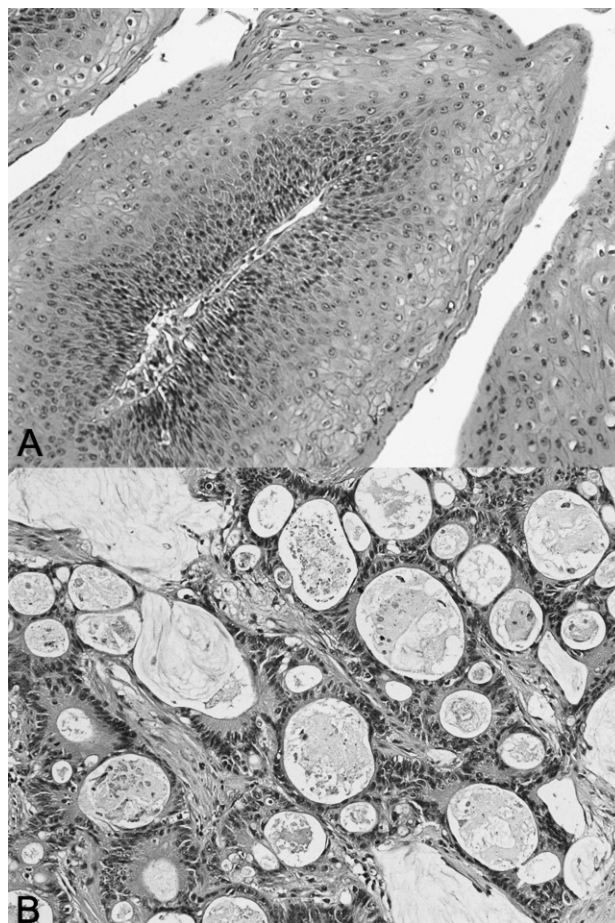


Fig. 6 (A) Histopathologic findings of left maxillary gingiva showed verrucous carcinoma with hyperparakeratosis and parakeratosis. Mild nuclear pleomorphism with slightly hyperchromatic nuclei and marked epithelial acanthosis with verrucous growth pattern are also present. H&E ($\times 200$). (B) Histopathologic findings of the left cervical lymph node showed moderately differentiated adenocarcinoma consistent with metastasis of the colon adenocarcinoma. H&E ($\times 200$).

nodes and the deep cervical lymph node metastasis. Although metastasis to Virchow's node indicates a systemic spread of cancer cells and that the disease is in the final stage of colon cancer,³ chemotherapy with mFOLFOX was effective in this case.

In summary, we reported a case of coincident maxillary verrucous carcinoma and colon adenocarcinoma accompanied with cervical lymph node metastasis, which was successfully treated by surgical intervention and postoperative chemotherapy. A thorough preoperative general examination is recommended for patients with oral cancer to rule out coincident carcinoma with metastasis from another region.

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