

MENTAL NEUROPATHY (NUMB CHIN SYNDROME) : AN INITIAL MANIFESTATION OF PROSTATE CANCER

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SUMMARY :

A 71-year-old male patient presented with hypoesthesia on his right mental nerve region for the last eight months and with recent pain on the right side of his face and swelling on the right lateral corner of his mouth. Physical examination revealed a 5x4 cm soft tissue swelling on the right lateral corner of the mouth, mucosal petechial bleeding, and a small ulcerus lesion. Neurologic examination showed a hypoesthetic region on the right side of the chin. The mandible panoramic radiograph was normal. Serum alkaline phosphatase, acid phosphatase, and prostate specific acid phosphatase were high. Bone scan illustrated widespread increased uptake in the right mandible and several other bones. Prostate biopsy revealed adenocancer. In this article, we want to emphasize that patients who complain of numbness in the mental nerve region should bring into mind the possibility of a malignancy.

Key Words: Mental, Neuropathy, Prostate, Cancer.

INTRODUCTION

The numb chin syndrome (NCS) or isolated mental neuropathy (1) is characterized by facial and oral numbness restricted to the distribution of the mental nerve (the distal trigeminal nerve) (2, 3). NCS is not a common syndrome of facial numbness, however. This neuropathy is rarely caused by benign lesions, It may be a symptom of a malignant disease even in a patient not known to have cancer (3). It is more commonly seen in patients with a known cancer or in patients with a or relapse of malignancy (2-4). It is especially noted in patients with breast cancer malignant lymphoma (2, 3, 5, 6). This syndrome usually occurs with inferior alveolar or mental nerve involvement, following a metastatic lesion in the mandible.

CASE REPORT

A 71-year-old male presented with numbness on the right chin for the past 8 months, and right sided face pain and right mandible swelling during the last month. With this complaint, he had visited a dentist. Clinical examination and panoramic x-rays of the mandible showed no abnormalities. The pain on the right side of the face was mild and blunt. Analgesics relieved the pain to a certain degree. The patient had a 20-year-history of alcohol intake and smoking. It was also learned that he suffered from frequent micturition. Physical examination demonstrated a 5x4 cm swelling on the right lateral corner of the mouth and mucosal petechial bleeding. Neurological examination demonstrated a small hypoesthetic region on the right side of the

chin. There were no other important neurologic findings. Laboratory investigation revealed the following findings which were all abnormal. ESR: 44 mm/h, serum alkaline phosphatase: 255 U/L (normal:30-80), acid phosphatase : 5.6 KAU (normal:1-4), prostatic acid phosphatase: 1.3 KAU (0.0-0.8), and prostate specific antigen : 88 ng/ml (0.0-0.10). The bone scan demonstrated increased tracer uptake in the right mandible and in many other bones (Fig. 1). A prostate biopsy showed adenocarcinoma. The patient was then referred to the oncology clinic where he was given chemotherapy and radiotherapy. The hypoesthesia resolved in three months.

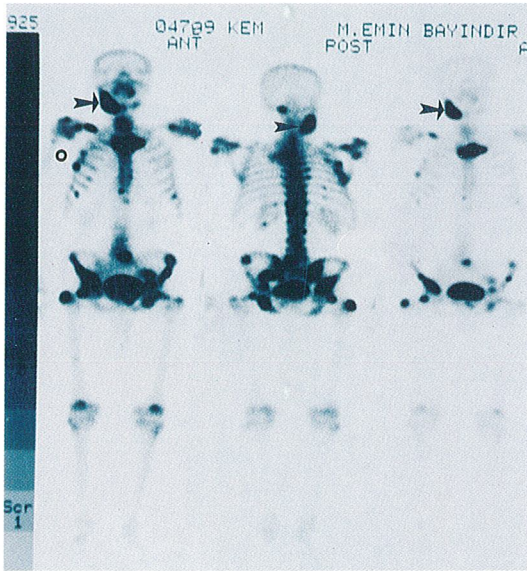


Fig. 1 : Bone scan 3 hours after the injection of 20 mCi Tc-99m labeled MDP, showing hyperactive focal lesions in the right mandible, basis cranii, left occipital condyle, right midclavicula, manubrium sterni, left sternoclavicular joint, tuberculum major of left humerus, margo medialis of scapula, right 6th, 8th and left 7th ribs, xyphoid process of sternum, 11th, 12th thoracic, 4th, 5th lumbar vertebrae, trochanter major of right femur and pelvic region.

DISCUSSION

The syndrome of the numb chin has been associated with systemic cancer, such as lymphoma, malignant melanoma, breast cancer, bone sarcomas, liposarcoma, multiple myeloma, etc (2-6). In most reported cases, cancer was known to be present before the diagnosis of mental neuropathy (2, 3). However, in a small number of cases, as seen in our patient, neuropathy was the initial symptom.

Several mechanisms underlie the NCS in neoplastic processes: compression of the mental or the inferior alveolar nerves by metastases to the jaw (1, 5), intracranial involvement of the mandibular nerve by base-of-skull lesions (1), or leptomeningeal seeding (1, 3), or neoplastic perineural infiltration of the mental nerve (6). Reports of NCS consist mainly of isolated case reports and a few small series (1, 4, 7-10). The largest report consists of 44 patients which was published by Lossos and Siegal (2). Bone metastasis was identified in 64 % of the cases (50 % mandibular and 14 % base-of-skull lesions). There was leptomeningeal seeding in 22% of the patients. Eleven percent of the cases had no underlying pathology. In our patient, the mandible metastases shown by bone scan were the most likely pathogenetic mechanism of mental neuropathy.

The clinical manifestations of mental nerve palsy include ipsilateral numbness or anesthesia of the skin of the lower lip, chin and mucous membranes of the inside of the lip, extending to the midline. Secondly, patients may bite down on the mucosal surface of the lower lip, developing painless ulceration. Some patients have swelling in the involved area, but few have pain (3). In our patient, all the major clinical findings were present, including pain. Our patient's hypoesthesia recovered completely in a couple of months after receiving chemotherapy and radiotherapy (3).

In general, unilateral or bilateral hypesthesia in the mental nerve region without a history of trauma is very seldom caused by benign lesions (11, 12). On the contrary, a malignancy is much more likely to be the culprit which may not yet be manifest clinically.

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