

## Squamous Cell Carcinoma of the Nasal Septum

— With Report of a Case —

Goro MOGI and Shoichi HONJO  
*Department of Otolaryngology,*  
*(Director: Prof. Dr. S. Honjo, M.D.)*  
*Yamaguchi University School of Medicine, Japan.*  
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It is generally accepted that primary squamous cell carcinoma of the nasal septum is rare in a review of the literature, in which only 28 cases have been reported since Hecker first described according to Gibb (1). A malignant tumor of the nasal septum may be overlooked or may be diagnosed and treated as a benign process in its early stage because the signs and symptoms are similar to those of benign tumor. Recently, in this paper a case of the squamous cell carcinoma of the nasal septum is present.

### REPORT OF A CASE

The patient, a 71 year-old woman, was admitted to our university hospital on May 24th, 1967, because of a mass in the left nostril. She gave us a history of trouble with unilateral nasal obstruction and blood-tinged discharge on the left side two months prior to her admission. She consulted an otolaryngologist, who noted a growth in her left nostril and sent her to our clinic for further examination. Her complaints did not include any nasal pain and severe bleeding. In addition, she had suffered from hypertension for several years.

On physical examination, she was well developed and nourished and had no acute distress. Her pulse was 72 and blood pressure was 180/100 mmHg.. Local examination revealed that the left nostril was completely filled with a smooth, fibrous, firm and thumb head sized mass which easily bled on slight manipulation, and with a sanguinous secrete. The inferior turbinate was not seen. The cotton applicator could not be inserted between the mass and septum. The right nostril was normal in appearance. The right side of the septum was not protrusive and its mucous membrane appeared smooth. In rhinoscopia posterior, a polypous mass was seen in the left nostril but not completely occupied it. There were no swelled cervical lymph nodes. The remainder of the ear, throat and larynx examination were normal.

Examination of the blood disclosed 39.1 % of hematocrit;  $397 \times 10^4$  red blood cells; and 8300 white blood cells, with differential count of 62 % segmented

neutrophils, 1.5% nonsegmented neutrophils, 0.5% eosinophils, 0.5% basophils, 30.5 lymphocytes and 5% monocytes. The thrombocytes were 58 per 10 oil-immersion fields. The bleeding time was 6 minutes. The systematic blood chemical tests revealed slight depletion. Serologic test for syphilis was negative.

X-ray examination of the nose and paranasal sinuses, including tomographs showed a slight cloudiness of the left nasal cavity but no evidence of malignant involvement (see Fig. 1).

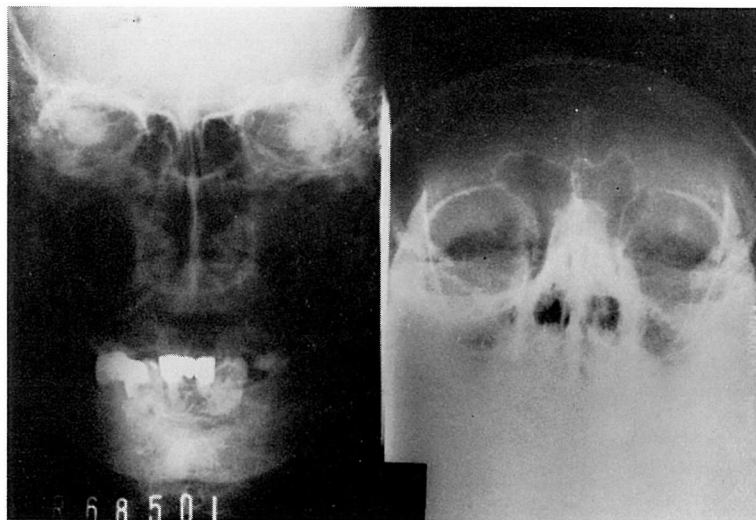


Fig. 1. X-ray of the nose and paranasal sinuses, showing a slight cloudiness on the left nasal cavity.

A large piece of the mass was taken from the left nostril and histological examination showed a moderate differentiated squamous cell carcinoma. Fig. 2 and 3 are photomicrographs of this tumor.

On June 1st, 1967, an excision of the tumor was performed and partial septectomy was also done on the affected side under local anesthesia. An incision was made through the mucous membrane and perichondrium on the right side just back of the mucocutaneous junction. Then the mucoperichondrium and mucoperiosteum were elevated and the cartilage was cut through at the site of the right. The soft tissue on the right side was elevated. The septal cartilage and bones seemed to be not invaded by the malignant lesion. After freeing the cartilage and bones from all soft tissue attachments, excisions were carried out, which included the tumor arising just behind the mucocutaneous junction, anterior septal cartilage and left sided mucous membrane. Bleeding was controlled by insertion of gelforms and gauze tampons on each nostrils. The tumor removed was  $3 \times 3 \times 2$  cm. in size.

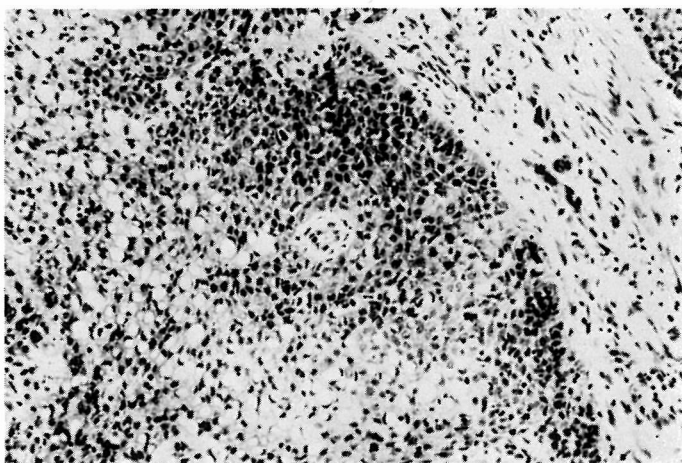


Fig. 2. Low power photomicrograph of the mass in the left nostril, revealing a moderate differentiated squamous cell carcinoma.

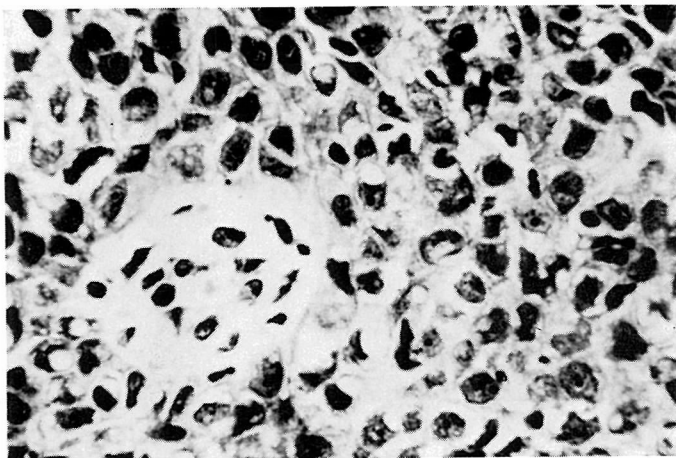


Fig. 3. High power photomicrograph of the mass in the left nostril, revealing a moderate differentiated squamous cell carcinoma.

5 days after the surgery, radiation by a radium needle was begun over the anterior portion of the septum operated and a total 3,000 r. was given during 30 days.

The septal lesion was well cured, remaining a small perforation as shown by Fig. 4 and on July 22th, 1967, she was discharged from this clinic. At the present time, three months later the surgery, no evidence of recurrence or metastasis was observed.

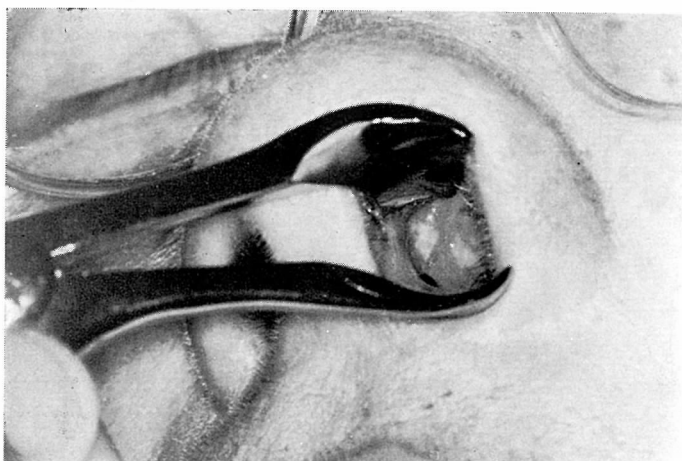


Fig. 4. Appearance of the left nostril after treatments of surgical excision and radium irradiation. A small septal perforation remains.

#### COMMENT

A lot of various kinds of primary tumors originating from the nasal septum has been reported (2). They are hemangioma, endothelioma, adenoma, fibroma, neurilomoma, dermoid cyst, plasma cell tumor, chondroma, chondrosarcoma, giant cell tumor, palilloma, epidermoid carcinoma, lymphoepithelioma and melanomasarcoma. Hemangioma, the most common nasal septum tumor, is well known as bleeding polyp. However, carcinoma is rare of malignant involments.

Carcinoma usually arises on the anterior septum or near the mucocutaneous junction and may grow slowly or rapidly (1, 3). Capps and Williams (4) noted that carcinoma of the nasal septum metastasized much more rapidly than antral or ethmoidal carcinoma, and that small tumors arising at the mucocutaneous junction of the septum were very dangerous because they tend to infiltrate along the lines of cleavage into the nasal labial fold and deeply into the nostril.

Bloody discharge, bleeding, unilateral obstruction and painless mass of the nose are common complaints of the malignant growths in the nose, however, they are also main symptoms of benign growths or inflammatory process in the nose and paranasal sinuses.

In the description of Deutsch (3), the malignant lesions of the septum tend to be friable, granular, infiltrating and bleed easily on gross appearance, while the benign lesions tend to be smooth, firm, localized, and mucosa covered. However, the carcinoma of the case reported here was smooth, fibrous, and firm and similar to those of the benign lesions. Therefore a definitive diagnosis should be made by a biopsy. However, the biopsy is sometimes inadequate when the

tissue material removed is a very small. Rogers et al (1) stated that Papanicolaou smears are helpful only when they are positive.

From the Deutsch's review of 27 cases of the carcinoma of the nasal septum, 45 % were living from two weeks to nine years after treatments which were surgical alone or radiation, or a combination of both. Our case was cured by a combined therapy, a total excision of the tumor, including a partial septectomy and radium radiation. Deutsch (3) and Rogers et al (1) carried out a rhinotomy and subtotal septectomy for possible en bloc excision. Small and well-differentiated tumors in the nose are better treated with surgical excision, while extensive or highly anaplastic ones require a combination of excision and irradiation, as reported by Devine et al (5). It is a difficult problem whether a radical neck dissection should be performed or not in the early stage of the lesion because the tumor originates in the midline and it cannot be ascertained where metastasis will appear.

Two etiologic factors may be considered for this condition. One is a metaplasia of the nasal mucosa. According to Rogers et al (1) and Capps et al (4), the nasal mucosa of the patient with septal carcinoma was changed from the normal respiratory epithelium to stratified squamous epithelium which may degenerate to squamous cell carcinoma. This metaplasia is the first step in the formation of epidermoid carcinoma in this region. Another one is a leucoplakia which is rare in the nasal cavity. However, Jones (6) reported one case of leucoplakia of the nasal septum, regarding as a precancerous.

### SUMMARY

Primary squamous cell carcinoma of the nasal septum is rare and usually arises at the mucocutaneous junction. One case is reported, being seen in a 71 year-old female with chief complaints of unilateral nasal blockage, bloody discharge and a painless mass in the nostril of two months' duration. The lesion was well cured by a combined therapy of surgical excision and radiation of radium needle.

### REFERENCES

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