METASTATIC CHONIOCARCINOMA OF THE NASAL CAVITY-
PRESENTING AS INTRACTABLE EPISTAXIS

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ABSTRACT: There are numerous known causes of epistaxis. Neoplasms of the nose and paranasal sinuses as causes of epistaxis are rare. Choriocarcinoma is a highly malignant germ cell tumor occurring in the reproductive and midline regions of the body. Metastasis may be principally by the lymphatic route as in other germ cell tumors but choriocarcinoma is known for its propensity to spread haematogenously. We report a rare case of metastatic choriocarcinoma of the nasal cavity presenting with intractable epistaxis in a 32 year old African gentleman which rapidly proved fatal. The literature is briefly reviewed.

Key Words: nasosinus neoplasms, choriocarcinoma, metastasis, epistaxis

INTRODUCTION

Otolaryngologists and Accident and Emergency practitioners frequently encounter patients presenting with epistaxis. The known causes of epistaxis are manifold, however in a large number of them the cause is not found (Juselius H, 1974). Idiopathic epistaxis is more common in hypertensive and elderly patients (Singh B, 1992) and tends to present with severe epistaxis in younger patients. Epistaxis is usually of "minor" nature easily controlled with either cautery or anterior nasal packing. Thus if a young non-hypertensive patient with no history of trauma and with normal coagulation profile presents with severe epistaxis, the diagnosis of idiopathic epistaxis must be reviewed.

Malignant tumors of the nose and paranasal sinuses make up about 0.5% of all tumors (Sisson and Becker, 1981). The maxillary sinuses are most often involved, accounting for approximately 77% of malignant sinus tumors. Of tumors metastatic to the nose and paranasal sinuses, renal cell carcinoma account for almost 50% (Cnberg et al, 1980). These metastatic tumors tend to be highly vascular and epistaxis is the most common presenting symptom (Bernstein et al, 1966). However, epistaxis is a less common symptom with other frequent tumors: metastatic to the nose and paranasal sinuses such as the ones arising from breast, lungs, testes and the gastrointestinal tract (Cnberg et al, 1980).

CASE REPORT

A 32 year old man was referred to the ENT Department with a 10 day history of intermittent epistaxis, gradually worsening in severity and increasing in frequency. Initial examination revealed large blood clots in both nostrils and
active generalized bleeding from the left nasal cavity. Bilateral anterior nasal packing was done and patient was hospitalized. Initial investigations including full blood count, differential count and clotting profile were normal. The epistaxis however, continued intermittently and hence a decision to examine his nose under general anaesthetic was taken. This revealed an irregular granular looking mass arising from the mid-third section of the left middle turbinate. Multiple biopsies were taken from the mass and this was followed by postnasal and anterior nasal packing. Histopathology suggested appearances were reminiscent of choriocarcinoma. In subsequent detailed questioning the patient admitted to the sudden appearance of painless right testicular mass three month ago with no subsequent change in its size or character. He also pointed to an erythematous skin lesion on the anterior wall of his chest which he admitted appeared around the same time. He also gave a history of passing dark stools recently and occasional diplopia. A repeat whole body clinical examination revealed a firm right-sided testicular mass and an erythematous raised skin module over his chest which measured 40 mm. In its maximum diameter. An urgent whole-body CT scan was performed which revealed multiple lesions in the brain, left nasal cavity, lungs and mediastinum consistent with metastasis. His sinuses revealed an air fluid level in both maxillary antra. The soft tissue mass appeared to involve the left middle turbinate. He underwent a right orchidectomy and excision of the erythematous skin lesion over his chest. Histology confirmed malignant testicular teratoma with choriocarcinomatous metastasis to skin identical in venous system consist of epidural and prevertebral veins in tumor spread. This would explain the propensity of renal, bronchogenic, breast and urogenital carcinoma metastasized to the paranasal sinuses. The pathogenesis of metastatic paranasal tumors has been discussed by Nahum and Bailey (1963). They emphasized the role of vertebral venous plexus in tumor spread. This venous system consist of epidural and prevertebral veins with innumerable intertwining vessels that communicate at every somite level with either the intercostals veins, the venae cavae and aoysus system or the pelvic veins. As these veins are without valves, increase of interatheracic or intra-abdominal pressures could possibly drive the tumor cells in the vertebral venous plexus. Emboli would thus in this way reach the venous sinuses of the head, namely the pterygoid plexus, the cavernous sinus and by retrograde spread can enter the paranasal sinuses. This would explain the propensity of renal, bronchogenic, breast and urogenital carcinoma metastasized to the paranasal sinuses.

Choriocarcinoma is a highly malignant tumor occurring in the reproductive organs and the midline regions of the body. Pure choriocarcinoma is extremely rare and by definition is composed solely of cytotrophoblastic and syncitiotrophoblastic cells (Mostofi and Price, 1973).
Whereas choriocarcinoma is the least common of germ cell tumors, seminoma is the most frequently found, occurring in an older age group and behaving in a less malignant way. The overall incidence of these germ cell tumors is approximately three in 100,000 males, 95% occurring between the age of 20 and 45 years (Mostofi and Price, 1973).

Choriocarcinoma in the testes are usually small, soft and sometimes cystic and are almost always haemorrhagic and necrotic. In 5% to 10% of patients with malignant testicular disease, the first manifestations are those resulting from metastatic deposits (Johnson DE, 1976). Metastases is principally by lymphatic route in other germ cell tumors but choriocarcinoma is known for its aggressive spread haematogenously (Johnson DE, 1976). Metastases from choriocarcinoma occur to the periaortic and iliac lymphnodes and to each lung in virtually all cases, liver in around 85%, intestines in 71% and spleen adrenal glands and brain in 50% of the cases (Mostofi and Price, 1973). As germ cells are totipotent potential elements, they may undergo trophoblastic or somatic differentiation either in the primary lesion or in areas of metastasis. Thus the metastatic lesion of any germ tumor may have elements of embryonal carcinoma, choriocarcinoma, seminoma or teratoma.

Intractable epistaxis is a disease of hypertensive and elderly patients but when it occurs in a young healthy patient it must be reviewed with a great deal of suspicion. Apart from a comprehensive ENT examination, a complete medical history and thorough physical examination becomes essential. Full attention must be given to the examination of the thyroid gland, breast, abdomen and testes. A chest x-ray, urinalysis, and in appropriate instances, an intravenous urogram should be obtained. This diagnostic series could in most instances, effectively rule out the presence of malignant disease in the sites which most frequently are the origin of malignancies which metastasise to the paranasal sinuses In a few instances, however, a whole-body CT scan is required to settle the diagnosis.

Choriocarcinoma almost always follows a rapidly fatal course, whereas other types of germ cell tumors may not. Radiotherapy after orchidectomy has been of little value in the treatment of choriocarcinoma. In addition, chemotherapy is not very encouraging (Johnson DE, 1976). The prognosis is poor with choriocarcinoma and the patient usually dies less than a year after diagnosis. The prognosis is slightly better when the choriocarcinoma occurs with embryonal carcinoma and more favourable when it is combined with seminoma or teratoma (Mostofi and Price, 1973).

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REFERENCES

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