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## Case Report

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# Ameloblastoma of the Nose

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Ameloblastoma protruding to the nose from the maxilla was reported by Murphy,<sup>1</sup> Simmons,<sup>2</sup> Ch'in,<sup>3</sup> and McGregor,<sup>4</sup> but primary ameloblastoma of the nose has not been recorded in English, German, or Chinese literature.

The histologic diagnosis of ameloblastoma is difficult and "sometimes impossible."<sup>3</sup> The following case was examined by four different groups of pathologists, and all diagnosed it as ameloblastoma of the nose.

### CASE REPORT

A 48-year-old woman stated that starting in 1967 the left inside of her nose had oozed blood after every time she went swimming. She was treated by her family physician and a rhinologist at her home town in New Jersey.

In 1971, she moved to Lancaster, Pa., and worked in social service at a hospital. Because of continued oozing of

blood from the inside of her nose, a biopsy was taken by a rhinologist on October 4, 1972. The pathologist diagnosed adamantinoma. The slides were sent to Ann Arbor, Mich., where nasal vestibule soft tissue ameloblastoma was the diagnosis.

On October 10, 1972, she was referred to me for surgical treatment. During my examination, her face showed extensive telangiectasia from x-rays, but I noticed no abnormality on the outside of her nose and no discharge, bleeding, or bloody stains on the inside. Only a small pale-yellow crust was found, approximately 2 mm in size inside the left nostril at the vestibule. Her general health was good, her blood pressure was 136/88 mm Hg, and multiphase screen laboratory tests were within normal limits. The dental x-ray, occlusal film, and the facial bones, including mandible, all were normal.

Her past history showed good health and she enjoyed outdoor sports. When she was 14 years old (1938), she developed extensive acne on her face. She was treated by x-ray but was unable to trace the detailed treatment and



FIG. 1. Distinct ameloblastoma (4 X).

From the Lancaster General Hospital.



FIG. 2. Stellate reticular and cuboidal columnar cells palisaded around the periphery (45 X).

dosage. She had tonsillectomy, appendectomy, and hysterectomy. Her family history was essentially negative.

On November 30, 1972, under endotracheal anesthesia, the area at the tip of the nose was excised and a septal flap was used to fill the nasal lining. Full-thickness skin taken from behind the right ear was grafted to the outside of her nose. Postoperatively the patient did well, and the graft healed completely.

The specimen reported by the pathologists at Lancaster General Hospital was ameloblastoma, nose. The slides were sent to the Hershey Medical Center for consultation (Figs. 1 and 2). The previous diagnosis was confirmed. After 8 years, postoperative follow-up shows no recurrence.

#### DISCUSSION

Ameloblastoma was first described by Broca.<sup>5</sup> He believed the tumor developed from the dental germ. Faulkson<sup>6</sup> was credited with the detailed description of this tumor, and Malassez<sup>7</sup> demonstrated its relationship and development from the enamel organ and the oral epithelium and called it adamantinoma. Others all agreed the tumor was located in the jaw only and accepted the term *adamantinoma*.

Then the extrajaw adamantinoma was reported in the pituitary by Onanoff<sup>8</sup> and others, and in the tibia by Fischer<sup>9</sup> and others.

Ameloblastoma of the upper lip was reported by Wohl,<sup>10</sup> of the pharynx by Feinbrunn,<sup>11</sup> of the parotid and ovary by Zajewloschin,<sup>12</sup> of the orbit by Suker,<sup>13</sup> of the cheek by Ch'in<sup>3</sup> and Braunstein,<sup>14</sup> and of the skull by Clarke and Parsons.<sup>15</sup>

During the period 1910 to 1940, detailed histopathologic studies and well-defined varieties

were described, and nomenclature with supporting evidence was provided. Byars<sup>16</sup> called it pre-ameloblastoma because "the ameloblastoma developed before ameloblasts had differentiated." All others believed that because no enamel is produced, the term adamantinoma should be discarded. Churchill<sup>17</sup> suggested the term *ameloblastoma*, and it was accepted by American oral pathologists. In 1934, it was approved officially by the American Academy of Oral Pathology.

Although the term *ameloblastoma* has been generally accepted, it still needs further clarification for such reasons as genetic disturbance, histogenesis, and embryonic development.

#### SUMMARY

The nomenclature of ameloblastoma is briefly reviewed. A case of primary nasal ameloblastoma is presented.

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