Ameloblastoma is a rare, odontogenic tumor, which arises from dental epithelium that is of enamel tissue type but does not undergo transformation to the point of enamel formation. The literature sites a predominance of mandibular involvement over maxillary origin by a factor of approximately 4:1. While these tumors are considered benign owing to the fact that they do not metastasize, they are locally destructive. We describe a case of an 86 year old woman presented with progressive left-sided nasal obstruction and pain emanating from the left superior alveolus. Examination demonstrated a gelatinous mass emanating from the left lateral nasal wall and filling the entire left nasal cavity. Additionally there was suggestion of an expanding lesion involving the left superior alveolar ridge with evidence of tumor eroding through the palatal mucosa and into the oral cavity. Cranial nerves were intact and there was no proptosis or limitation of extraocular movements. The patient denied any symptoms of diplopia, epistaxis, or hemiphoria.

A computed tomography (CT) scan was obtained and this showed tumor extension to the anterior skull base without evidence of invasion into orbit or anterior cranial fossa. A magnetic resonance imaging (MRI) study confirmed that the tumor was filling the anterior ethmoid and frontal sinuses and was extending to but not through the anterior skull base (Figure 1A-C). The periorbita was similarly spared. A biopsy of the nasal component of the mass was performed and this was suggestive of ameloblastoma.

The patient was taken to the operating room where an endoscopically-assisted inferior structure maxillectomy with total ethmoidectomy and frontal sinusotomy was performed without complication. The inferior structure maxillectomy was performed transorally and the nasal, ethmoid, and frontal components of the tumor resection were accomplished through an endonasal approach. Prior to the resection, a tarsorrhaphy stitch was placed and the face was prepped and marked for a possible open approach.