

SPONTANEOUS RUPTURE OF FACIAL ARTERY DUE TO BUCCAL MALIGNANT EROSION AND MANAGEMENT: A CASE REPORT

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ABSTRACT

In this compilation we report Carcinoma Left Buccal region (cheek) which presented as spontaneous, sudden rupture of the facial artery and spreading hematoma of the left half of the face. Further expansion of the hematoma was checked by immediate compression on the inferior border of body of Mandible. Hematoma resolved with conservative management and the patient underwent a resection and pedicle forehead flap reconstruction of the defect. This was followed by Radiotherapy for the node and the primary lesion.

KEY WORDS

Facial Artery, Malignant erosion, Cancer, Cheek

INTRODUCTION

Malignant erosion of a major artery is the terminal fate of many a Cancer patients. Erosion of Aorta, Internal Carotid Artery and External carotid artery has been described in the literature. Here we describe an unusual case of malignant erosion of the Facial artery leading to spontaneous rupture, facial hematoma and its subsequent management.

CASE HISTORY

47 year old Mr. Rg presented to our E.N.T Outpatient clinic with a history of swelling of Cheek and redness of cheek since morning. The swelling and redness suddenly developed while he was attending his morning ablutions. The swelling was progressive in size. He also gave history of Pain and ulcer in the cheek. Mr. Rg was a smoker and betel nut chewer by habit and he occasionally took liquor. He had the habit

of keeping the betel quid laced with slaked lime (= *Tamil Chunnamb*) in the left cheek. He did not have any other medical illness.

On Examination we found a large hematoma occupying roughly whole of the mid one third of left half of the face. The swelling was tense in consistency, red in colour and pulsatile to touch. There was severe tenderness. Muscles of mastication were unaffected, so trismus was absent. [6] On examination of mouth it was found to contain a malignant, proliferative growth filling up the Left Buccal mucosa extending from the upper alveolar margin to the lower alveolar margin. Posteriorly the growth extended till the retro molar trigone. Surface was irregular. A 4 X1 cm clot was found sticking to the edges of the Buccal mucosa (Refer figure 1) Sub-mental nodes were enlarged 2 cms in size, non tender, firm in consistency and no fixity. [N1 Nodal staging for buccal carcinoma]



Figure 1: Patient showing spreading facial swelling due to sudden malignant rupture of Facial artery (Red arrow).
A clot can be seen in the edge of the mouth. (Green arrow)

The patient was assigned T4 of American Joint Committee on Cancer Staging of Lip and Oral Cavity Cancer, T.N.M Staging as there was invasion proximal structures. Patient was grouped in Stage IVA as per the staging chart.^[7]

Facial artery pulsation was located on inferior surface of body of the mandible and was immediately compressed against bone of the mandible. Compression was done for 10 minutes to ensure no further spread of hematoma.

Venous access was secured and patient was immediately admitted into our E.N.T Intensive care unit. An immediate platelet count, peripheral smear, Bleeding time, clotting time and coagulation profile was checked and found to be normal. Injection Ethamsylate 500 mg four times daily and injection

Midazolam 5mg I.M Stat was given.^[1] Serratiopeptidase and Trypsin oral formulation were given to reduce the swelling. He was also given one unit of compatible blood transfusion. He was advised to take only liquid diet, abstain from any straining and apply Glycerin Magnesium Sulphate (Glycerin -Magsulf) to reduce the oedema.^[4] He underwent an angiogram which showed no further leakage of the dye, hence it was assumed that the rupture had sealed. Embolization was not done. Thus, further expansion of the erosion was checked by conservative management.^[1]

One month later the patient underwent an Onco-Surgical evaluation, following which he underwent a resection and tube pedicle flap reconstruction of the defect. He was referred for Radiotherapy for the secondary node. He is under follow up and is disease free till this date.

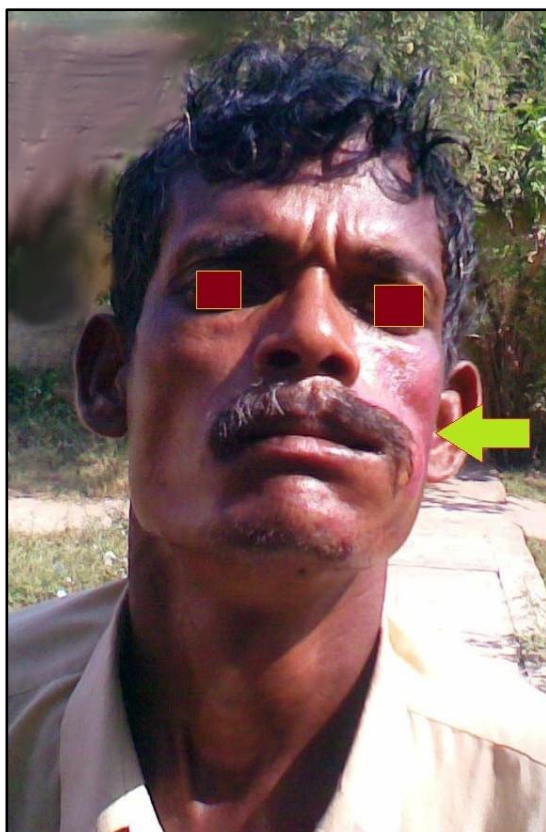


Figure 2: Facial hematoma due to malignant rupture of Facial artery, resolving stage.
Green arrow points to resolving hematoma.



Figure 3: Angiogram of the Left facial vein showing no extravasation of contrast media. Rupture sealed with conservative management.

DISCUSSION

Buccal Carcinomas accounts, for around 8% of all oral malignancies. Typically occurs after 60 years of age and is more common in males.^[5] In India, use of Betel nut laced with Slaked lime is associated with high risk of developing buccal carcinoma. This habit was found in this case also.^[6]

All malignant ulcers have tendency to bleed. This is enhanced by the high vascularity of the tumors. Erosion of major vessels like Carotid is a common terminal event in natural history of head and neck malignancy.^[4] This entity has been well reported and documented in literature but malignant rupture Facial artery has not been hitherto reported.

Facial artery and Superficial Temporal artery are the major nutrient supply to the face. Facial artery originates in the neck from the external carotid artery. It enters the face crossing the anteroinferior border of Masseter and inferior surface of body of mandible. Its pulsation can be felt here. It is superficial and lies underneath the Platysma. It is covered by skin and fat of the cheek. It is presumed that the buccal malignancy eroded the Facial artery here. It has a tortuous course making it even more vulnerable to injury. Further, it may pass over or through levator labii superioris. Towards the end it is embedded in levator labii superioris alaequae nasi. Here again it may be prone for rupture due malignant erosion and forcible contraction of the muscle.^[3]

CONCLUSION

1. Erosion of the Facial artery is a rare presentation of Malignancy of Oral cavity. This condition has to be thought of in any patient of Oral Buccal or gingival malignancy who presents with sudden onset reddish swelling of the cheek following an episode of straining or coughing. Rapid compression of the Facial artery

against the inferior border of bone of Mandible can save the patient from a fatal hemorrhage.

2. Enzymatic preparations like Trypsin (Brand name Rutoheal) seem to be very effective in control of edema and hematoma following malignancy.

Conflicts of interest

I hereby declare that there is no conflict of interest.

Acknowledgements

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