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Case Report

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Facial fibro-osseous lesion & reconstruction: rare practice

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ABSTRACT

Congenital fibro-osseous lesion is rare, but disfiguring and stressing lesion for young adults. Even being benign lesion it needs surgery for improving functional deformities and cosmetic appearance. Reconstruction of defect after surgical excision is required for optimum treatment, depending on size and extent of lesion.

Keywords: Fibro osseous lesion, Free fibular flap, Reconstruction, Faciomaxillary lesion, Face deformity

INTRODUCTION

Fibro Osseous Lesions (FOL) are group of tumors and proliferative lesions either benign or malignant named as fibrous dysplasia, osteitis fibrosa cystica, fibrous osteoma, osseous dysplasia, osteofibrosis, periapical cementoma, and osteoid osteoma. Fibro Osseous Lesions (FOL) refer to a diverse process in which the normal bone architecture is replaced by fibroblast and collagen fibers containing variable amounts of mineralized material. Pathology in faciomaxillary FOL is identical hence it's difficult to accept conservative management in such ambiguous lesions.

CASE REPORT

A 16 year old Nigerian male child presented to our department with complains of swelling of right side of face which was gradually increasing in size & disfiguring from past few months. He also have impaired vision due to swelling and difficulty in chewing due to impaired dental occlusion.

On examination-there was a soft, non-tender swelling involving right upper and lower alveolus with extension towards the left side. Right maxillary region and hard palate was also hypertrophied irregularly crossing the midline towards left. Hard palate protruded into the oral cavity shifting median raphe towards left. Half of maxillary alveolus eroded on same side. Lesion was also bulging into right side of nasal cavity and causing deviated nasal septum to left side. Overlying skin and subcutaneous tissue was hypertrophied and thickened.

Figure 1: On examination.

NCCT face: Expansile soft tissue lesion of upper and lower alveolus with mild extension to left side medially bulging into right sided nasal cavity superior-medially

bulging into ethmoid cells and extra conal space of right orbit with overlying skin and subcutaneous tissue thickening. And right cervical lymphadenopathy S/o? Ameloblastoma or benign fibro-osseous lesion.

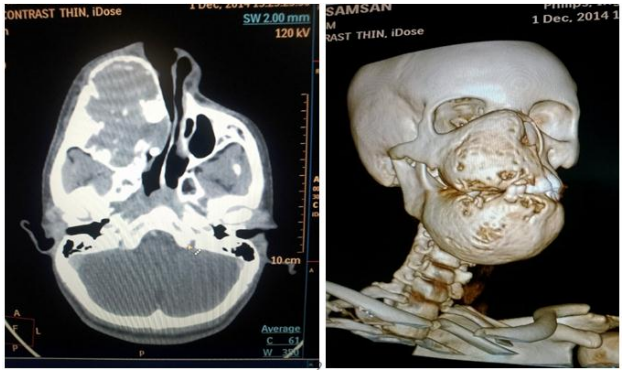

Figure 2: NCCT face.

CECT chest s/o focal ground glass haziness in lateral basal segment of left lower lobe. No evidence of metastatic disease.

USG abdomen s/o minimal free fluid

Biopsy taken from maxillary sinus growth was suggestive of benign fibro-osseous lesion

During PAC difficult airway was anticipated nasal intubation was impossible due to the lesion so tracheostomy was advised.

Plan: Extended Right Hemi Mandibulectomy with enucleation of maxillary mass with reconstruction with free fibular graft left side.

Surgery

Maxillary cavity cleared upto upper alveolar margins.

Free fibular flap harvested from left leg dimension 22x7 cm.

Donor site grafted with SSG taken from right thigh.

3 osteotomies performed as - 6 cm right body + 3 cm ramus + 4 cm left body, all osteotomies fixed with 2 mm mini-plates.

Anastomosis - Right side neck

Donor artery - Facial E-E 8-0 ethilon,

Donor vein - 1) Branch EJV Right side E-E 8-0 ethilon; 2) Branch Right IJV E-E 8-0 ethilon, flap insertion done, bone chips filled in maxillary cavity, de-epithelized dermis filled in, facial wound closed, right sided extended hemi mandibulectomy done along with right mandibular lymph nodes.

Osteotomy of anterior wall of right maxillary sinus, enucleation of fleshy white firm mass done superiorly upto infra orbital margin ,laterally upto lateral wall of maxillary sinus, medially upto nasal cavity, inferiorly upto inner cortex of hard palate, reconstruction done with free fibular flap left sided and filled with temporalis flap.

Post op patient was shifted to ICU and was kept on mechanical ventilation. Patient was extubated on second post-operative day and shifted to the ward after stabilization on 7th post-operative day. Patient was discharged in very satisfied and stable condition. Patient's vision improved in better way. Donor site healing took place in follow up.

Figure 3: Surgery.

Final histopathology: Gross: 12x8x6 cm distorted mandibular mass with 11 teeth. Rest of teeth unerupted with absence of tooth socket.1.5 cm largest lymph node at level I. Microscopic features are suggestive of benign fibro osseous lesion of dense cellular fibrous stroma and dystrophic calcification/ossification areas. Lymph nodes showing reactive hyperplasia with sinus histiocytosis.

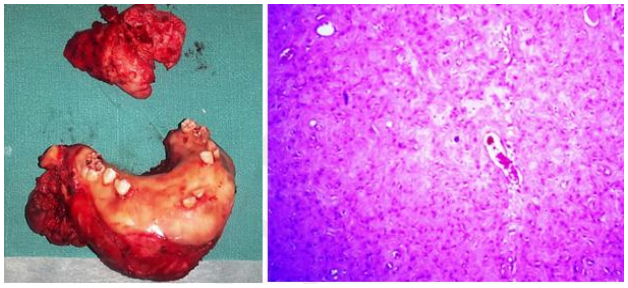

Figure 4: Final histopathology.

DISCUSSION

Ajagbe et al.[1] in a case series of 133 case in Nigeria of different variant of FOL concluded that radical excision is only cure, in spite of this some lesions recurred rapidly. Surgical recountering and saucerization was performed in most of cases to avoid graft reconstruction because of failure risk of graft. In few cases tooth bearing obturators

were fabricated after hemi maxillectomy in cosmetics demanding patients.

But in our case operated in INDIA is rare presentation and we performed free fibular graft reconstruction with 3 osteotomies after conservative resection of lesion and covered with temporalis flap. Such reconstruction in not described in previous reported cases and seems an innovative management.

In six month follow up, there is no recurrence or growth at operated site and patient is in continuous follow up.

CONCLUSION

Reconstruction after radical surgery for benign lesion is satisfactory for patient without significant recurrence and malignant transformation risk. Only shave off, bone countering & saucerization may need frequent surgical exposure and undue stress for patient from early age.

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Ethical approval: Not required

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