

Facial fractures from dog bite injuries in maxillofacial region in children: case report

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Introduction

Facial trauma in children represents a significant medical and public health issue. According to the National Center for Preventive Programs and Disease Control of the Mexican Ministry of Health (cenaprese 2018), the number of people assaulted by dog bite rose to 876,000 cases, in the last decade. Between 72% and 94% of victims are actually familiar with the biting animal. Rates of soft-tissue infection in the head and neck following dog bite injuries are variable, with a reported incidence of 0–14%. Risk factors that may encourage the use of antibiotics include presentation greater than 9h after injury, involvement of bone or tendon, deep puncture and crush.

Objetive

The objective of this study is to review a case of a 4-year-old boy with facial trauma secondary to a dog bite, Lackmann classification IVb, and the management.

Case Report

Patient Information

Name: ACMM
Gender: Male
Age: 4 years old
Mexico City



Initial photography



CT Reconstruction

LACKMANN'S CLASSIFICATION:

- I. Superficial lesion, without muscle involvement.
- II. Deep lesion, with muscle involvement.
- III. Deep lesion with muscle involvement and tissue defect.
- IVa. Class III combined with vascular damage of nerve lesions.
- IVb. Class III combined with bone damage or organ involvement



Dacryocystorhinostomy



Immediately postoperative

3 days



3 weeks



3 months

The main complexity of the case are the approach of facial fractures and multiple facial wounds, the patient were treated with open reduction and internal fixation with absorbable material, wound closure, full thickness graft in the left cheek and dacryocystorhinostomy. Pharmacological treatment with cephalothin 250mg every 24 hours.

Discussion

Dog bites in the facial region with bone involvement and ocular adnexa are difficult reconstruction due to the complexity of the wounds thus to their bacteriological status, mechanism of action and depth. After 3 months of postoperative exploration, 30mm oral opening was observed, without language difficulties, adequate swallowing, no complaints, adequate neurological functions. As aftermath we can observe traumatic telecanthus, House Brackmann III facial paralysis, moderate trismus, which is being treated with rehabilitation.

Conflict interest

The authors have no conflict of interest

Conclusion

Therefore, anatomical structures should be considered for reconstruction in order to minimize sequelae. In addition, the reconstruction must be carried out in several interventions in a multidisciplinary way, interventions by plastic surgery are needed to improve the conditions of the wounds

References

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