MARCUS GUNN SYNDROME : Report of a Case

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ABSTRACT

Marcus Gunn syndrome is a rare phenomenon with very less number of cases reported in literature. It may be congenital or acquired. This articles reports one such case which was found during routine clinical examination and discusses its pathogenesis and management.

Keywords: Marcus Gunn Syndrome; Jaw Wink Syndrome

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Introduction

Marcus Gunn syndrome or Jaw Wink syndrome was first described by the Dr. Marcus Gunn in 1883, an ophthalmologist by profession[1]. It is a rare phenomenon which may be congenital or acquired with 5% of neonates having congential ptosis[2]. It can also be acquired due to trauma to facial nerve during surgery or any other cause. Although this syndrome usually occurs unilaterally, it can very rarely occur bilaterally. This article reports a case of Marcus Gunn syndrome and discusses its management.

CASE REPORT

A male patient aged 21 years reported to our department of oral and maxillofacial surgery for extraction of his grossly decayed teeth. Clinical examination revealed painless grossly decayed 36 and 46 from 2 months. There was no cervical lymphadenopathy. Routine medical history of the patient was taken. There was no underlying disorder except for winking of right eye during the movement of jaw which was then confirmed clinically. There was ptosis of right eye and history revealed that from early infancy the right eye moved up and down synchronously with the movements of jaw while performing any functional activities like mastication. There were no other abnormal signs present and no history of trauma. Intraoral peripaical radiographs were taken. Final diagnosis of congenital Marcus Gunn syndrome(jaw wink syndrome) and chronic pulpitis - 36 and 46 were made, extraction of 36 and 46 were done under local anesthesia.

DISCUSSION

The striking main feature of the Marcus Gunn syndrome is the synkinetic movement between muscles of mastication and the upper eyelid. The patient complains paradoxical oculopalpebral movements provoked by mandibular movements. In 5 % of the cases there can be congenital blepharoptosis or it can be acquired following trauma to the facial area[2]. The etiology of the congenital Marcus Gunn phenomenon is still unknown and treatment is mainly aimed at the management of palpebral ptosis when it is severe by resecting or transposing the levator palpebral superioris muscle and correcting other extra-ocular lesions, such as ambylopia strabismus and other conditions detected by specialized ophthalmologic examination[3,4]. The diagnosis is generally made earlier by the child's parents or guardians who observe the synkinetic movement when feeding during infancy and some goes unnoticed till they attain teenage. However there is a hypothesis by some authors that it can be caused due to trauma of facial nerve which gives aberrant growth branches to the mandibular branch of trigeminal nerve while some authors believe that on stimulation of trigeminal nerve innervating the pterygoid muscles causes excitation of oculomotor nerve innervating the levator palpebrae superioris on the ipsilateral side causing rhythmic jerking of upper eyelid[5,6,7]. The attending specialist focuses the treatment, mainly in relation to correct congenital major lesions/repair of facial nerve. Treatment is usually not required but it is noteworthy to point out that the correction of the palpebral ptosis and when severe, surgery can be carried out with bilateral levator excision and frontalis brow suspension in order to avoid exaggerated permanence of the levator palpebral superioris synkinesis [8].

REFERENCES

1. Gunn RM. Congenital ptosis with peculiar associated movements of the affected lid. Trans Ophthal Soc UK. 1883;3:283-7.
2. Khwarg, Sang In, et al. "Management of moderate-tosevere Marcus-Gunn jaw-winking ptosis." Ophthalmology 1999;106(6): 1191-1196.
3. Kirkham TH. Paradoxical elevation of eyelid on smiling. Am JOphthalmol 1971;72(1):207-8.
4. Parry R. An unusual case of the Marcus Gunn syndrome.

Trans Opthal Soc U K 1957;77:181-5.

5. Kirkham TH. Familial Marcus Gunn phenomenon. Br J Ophthalmol 1969;53(4):282-3.
6. Bartkowski, Stanislaw B.,et al. "Marcus Gunn jaw-winking phenomenon: management and results of treatment in 19 patients.Journal of Cranio-Maxillofacial Surgery 1999;27(1): 25-29.
7. Hepler RS, Hoyt WF, Loeffler JD. Paradoxical synkinetic levator inhibition and excitation. An electromyographic study of unilateral oculopalpebral and bilateral mandibulopalpebral (Marcus Gunn) synkineses in a 74-year-old man. Arch Neurol 1968;18(4):416-24.
8. Dryden, Robert M., James C. Fleming, and Marvin H. Quickert. "Levator transposition and frontalis sling procedure in severe unilateral ptosis and the paradoxically innervated levator." Archives of Ophthalmology 1982;100(3):462.

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