



ISOLATED FACIAL NERVE PARALYSIS: OCULAR MANIFESTATIONS AND COMPLICATIONS

Dr. Sarbori Saha

Associate Professor, Department of Ophthalmology Mata Gujri Memorial Medical College & Lions Seva Kendra Hospital, MGM University, Kishanganj, Bihar.

Dr. Namrata Nidhi

Junior Resident, Department of Ophthalmology, Mata Gujri Memorial Medical College & Lions Seva Kendra Hospital, MGM University, Kishanganj, Bihar.

Dr. Soumen Kumar Paul

Consultant, Department of CTVS, Fortis Hospital, Kolkata.

ABSTRACT

Aim: To evaluate the causes of isolated facial nerve palsy and its complication. **Materials and Methods:** A retrospective study was done with 48 patients with facial nerve paralysis attended in a tertiary care hospital. Visual acuity, extraocular movements, Bell's phenomenon, fluorescein corneal staining, slit lamp bio-microscope examination and fundus examination were done for all cases. **Results:** Most common cause of isolated facial nerve paralysis was Bell's palsy (70.70%). Most common symptom was watering from eyes. Most severe complication was corneal ulceration (8.33%). **Conclusion:** Most common cause of isolated facial nerve paralysis was Bell's palsy and most common ocular complication was corneal ulceration.

KEYWORDS : Tarsorrhaphy, exposure keratitis, Bell's palsy.**INTRODUCTION**

Isolated facial nerve paralysis, commonly known as Bell's palsy, is a condition characterized by the sudden onset of unilateral facial weakness or paralysis. This condition significantly impacts on facial muscles, leading to a range of functional and cosmetic issues. Among the various complications associated with facial nerve paralysis, ocular complications are particularly concerning. Inadequate eyelid closure, reduced tear production, and corneal exposure can lead to serious eye problems, potentially compromising vision if not managed early.

MATERIALS AND METHODS

It is retrospective cohort study to analyze clinical data from patients diagnosed with isolated facial nerve paralysis. The study aims to provide insights into the correlation between the severity of facial nerve paralysis and the incidence of ocular complications and effective management of these patients to prevent long-term ocular complications

A sample of 48 patients attending in a tertiary care hospital with isolated facial nerve palsy were selected. Out of 23 patients were male and 25 patients were female. The age of the patients were 15 - 60 years. All the cases were examined thoroughly. Neurological and ENT examination was done by neurologist and Otorhinolaryngologist.

Inclusion Criteria: Cases with isolated facial nerve paralysis were selected for this study.

Exclusion Criteria: Patients with other cranial nerve involvement and previous disease in cornea were excluded.

RESULTS

Out of 48 patients with isolated facial nerve paralysis 33 cases were bells palsy, 7 cases were due to surgical trauma and 5 cases were due to Road traffic accident 23 patient (47.91%) were male and 25(52.02%) were female. The most common cause of isolated facial nerve paralysis was Bell's palsy (70.70%) [Table 1]. The second most important cause of isolated facial nerve palsy was surgical trauma (15.62%).

Table 1 – Causes Of Isolated Facial Nerve Palsy

Sl No.	Causes	Number of patients(%)
1.	Bell's palsy	33(70.70%)
2.	Surgical Trauma	7(14.58%)
3.	Road traffic accidents	5(10.41%)
4.	Diabetes	2(4.16%)
5.	Congenital	1 (2.08%)
	Total	

The most common symptom of the patients were watering of eyes followed by photophobia, decreased vision, dry eye and taste disorder. Few of them complained of post auricular pain and loss of hearing. All the patients were treated with oral Prednisolone and antiviral drug. All

the patients were advised lubricating eye drop at daytime and lubricating gel at the night. In the severe cases where the cornea was exposed temporary eye closer had done. All the patients were given physiotherapy and severe cases were given galvanic stimulation. In spite of all these treatment 14 cases were developed corneal staining for which prophylactic antibiotic eye drops were given. Out of 14 cases three patients developed corneal ulceration in the inferior part of the cornea [Table – 2].

Table – 2 – Complication Of Facial Nerve Palsy

Sl no.	Complication	Number of patients
1.	Watering	48(100%)
2.	Corneal staining	14(29.16)
3.	Keratitis	4(8.33%)

DISCUSSION

According to Vasque LM et al 'study, The most common cause of isolated facial nerve palsy was Bell's palsy Followed by GBS, encephalitis and intracranial tumour. The result of our study is similar that most common cause of facial palsy was bells palsy (70.70%). Second most common cause was surgical trauma (14.58%). It is also similar to the study of Keane JR et al 'where most common cause of bilateral facial nerve palsy was bell's palsy, followed by Gullian barre syndrome, intracranial tumours, encephalitis.

In our study the most common complication was epiphora (100%) followed by exposure keratitis (29.16%) and corneal ulceration (8.33%) which collaborates with the finding of SeiffST et al⁸ study.

The main ocular treatment is to give corneal protection and restoration of blink mechanism.

CONCLUSION

This study highlights the significant impact of isolated facial nerve paralysis on ocular health. Most common cause of isolated facial nerve paralysis was bell's palsy. Most severe ocular complication was exposure keratitis. Early intervention with appropriate ocular management strategies, such as artificial tears, protective measures, and in some cases surgical interventions, is crucial to prevent long-term morbidity.

Limitation Of Study

Long term complications couldn't be assessed due to lack of follow up.

Conflict Of Interest: None.

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