

# Recovery in a three years old male child after bell's palsy: A case report

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## Abstract

A 3 years old male child with difficulty in chewing, drawing angle of mouth towards to left while smiling, aching of ear and poor right eyelid closure referred from pediatric department for physical therapy treatment to outdoor physical therapy clinic. Onset was sudden two days back. During history taking, patient complained of ear pain and referred to ENT specialist where child was diagnosed for ear infection. Patient recovered completely with two week electrical nerve stimulation and facial muscle exercises. Before starting the interventions, patient was scored on facial disability index. After two weeks of interventions patients scored maximum on facial disability and recovered fully.

**Keywords:** Bell's Palsy; Electrical Muscles Stimulation; Facial Muscle Exercises; Facial Disability.

## INTRODUCTION

Facial nerve palsy also termed as Bell's palsy, a lower motor neuron lesion, is characterized by sudden onset of one side of facial muscles supplied by facial nerve (1). Usually patient is presented in emergency departments with drawing of face towards the sound side, difficulty in articulation, inability to close eye and impairment in swallowing (2). Patients are diagnosed on the basis of history and examination (3). Usual medical treatment is use of steroid therapy along with physical therapy interventions (4). Prognosis is satisfactory and most patient resume to initial state and function (5). Severity of Bell's palsy is depending upon the severity of nerve damage. In case of mild disease, patients recovered in four to six weeks and in some patients, recovery may be postponed due to severe nerve damage (5).

Recovery after Bell's palsy is automatic; however physical therapy treatment in the form of electrical muscle stimulation and facial muscle exercises can augment the recovery process (6). The incidence of Bell's palsy is increasing in children. Current incidence rate is 06/100000 in a year in 14 year children and incidence increased to 20/1000000 in age 15-29 years (7).

This case showed the unusual recovery in a child with Bell's palsy. Patient recovered completely in 10 session of physical therapy treatment.

## CASE REPORT

A 3 years old male child with difficulty in chewing, drawing angle of mouth towards to left while smiling, collection of food to right side of oral cavity while swallowing, aching of ear and poor right eyelid closure was referred from pediatric specialist for physical therapy treatment to outdoor physical therapy clinic with history of sudden onset of two days back. During history taking, patient complaint of ear pain and referred to ENT specialist where child diagnosed for ear infection. Child showed no history of previous infection, no delayed milestone, normal abnormal deep tendon reflexes on limbs and no history of fever. Child showed no family history of same disease.

**Diagnosis:** Diagnosis was made on the basis of history, examination and clinical signs. Bell's sign was positive. There was drawing of face when child was asked to give a smile and while asking for showing tooth.

**Management:** Informed consent was taken from parents and method of treatment and procedure was also explained before starting the interventions. Patient was scored on facial disability index before starting the interventions. Interventions that we used for management were electrical current stimulation of muscle by faradic type current combine with facial muscles exercises. Total duration of single treatment session was 30 to 40 minutes and treatment was continued for 2 weeks, five days in a week.

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Total 10 sessions of treatment were repeated. After two week of treatment child show a significant improvement on facial disability index and recovered completely with minor residual weakness. After two weeks there was complete closure of eye, minimum drawing of angel of jaw, and without collection of food while swallowing. Pre intervention score was 60/100 on facial disability index. After two weeks, post intervention score was 100/100.

**Outcome Measurement:** Outcomes were measured on physical function part of facial disability index. Baseline measurement was taken one day before starting the intervention and post intervention measurement was taken after two weeks of interventions.

**Table 1. This table is showing preintervantional and post interventional score and index.**

Facial disability index	Pre-intervention score	Post-intervention score
Score	17/25	25/25
Index	60	100

## CONCLUSION

This case report concluded that electrical current stimulation combine with facial muscle exercises have significant effects to decrease the facial disability of 03 years old male child in two weeks (10 sessions).

## DISCUSSIONS

Alayat and colleges reported the efficacy of laser therapy in the treatment of Bell's palsy in successive 06 weeks [8]. Fabrin and colleges concluded that acupuncture assisted electrical stimulation can reverse symptoms in short time and duration of intervention was 20 weeks , one session in one week (9). This case report concluded that patient recovered fully in 02 weeks therapy, total 10 sessions. Same protocol can be studied with greater

sample size in children to generalize the effects on whole population. Child also was on short term steroid therapy, so it is unclear that recovery is automatic, or by steroid therapy, or by physiotherapy intervention. So this case report can be repeated with control groups. A combine effects o physiotherapy effects with steroid therapy can be seen. Further studied are needed to find the efficacy of physiotherapy treatments in Bell's palsy.

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