

ORIGINAL ARTICLES

FREQUENCY OF BELL'S PALSY PATIENTS GETTING STEROIDS AT ONSET OF THEIR SYMPTOMS

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ABSTRACT

Objective: To determine the frequency of Bell's palsy patients getting recommended doses of steroids at their first presentation to a general physician within the first 72 hours of onset of their symptoms.

Study Design: A descriptive study.

Place and Duration of Study: Combined Military Hospital (CMH) Lahore, from Nov 2014 to Feb 2015 over a period of four months.

Material and Methods: Patients suffering from Bell's palsy, reporting to a general physician within the first 72 hours of onset of their symptoms and then later visiting CMH Lahore for a second opinion of neurologist. Information about their initial treatment was obtained from the first prescription of their first general physician.

Results: Thirty two patients fulfilled the inclusion criteria of our study, 11 (34%) patients received recommended doses of steroids, 14 (44%) received suboptimal doses and 7 (22%) did not receive steroids.

Conclusion: Majority of the patients suffering from Bell's palsy did not received their optimal doses of steroids when they first reported to a general physician after onset of their symptoms.

Keywords: Bell's palsy, General physician, Steroids.

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INTRODUCTION

Bell's palsy has been defined as an acute peripheral facial nerve palsy of unknown etiology¹. It is considered to be caused by an inflammatory reaction affecting the facial nerve in its' bony canal. Although immune, infective and ischemic mechanisms may contribute to the development of Bell's palsy, the precise cause remains unclear. Increasing evidence suggests reactivation of herpes simplex virus in most cases of Bell's palsy².

Bell's palsy affects both sexes equally. It occurs at all times of the year. Its annual incidence is 20 to 30 cases per 100,000 people. Bell's palsy may occur at any age³. However, the median age of onset is 40 years. The left and right facial nerves are affected with equal frequency.

Bell's palsy occurs acutely; about one-half of the patients develop maximum paralysis within 2 days and within 5 days almost all patients have

maximum paralysis. There is complete recovery of facial weakness in most patients but some patients may have residual facial weakness resulting in permanent facial disfigurement.

Bell's palsy is a diagnosis of exclusion. This term is applied only when other causes of facial nerve lesion are ruled out⁴. The diagnosis of Bell's palsy is made clinically. The neurologic examination is normal with the exception of facial palsy⁵. Patients with typical presentation of Bell's palsy do not need further investigations. MRI scan is recommended if the clinical examination shows atypical physical signs, there is slow progression even after three weeks or if there is no improvement in facial weakness after six months. MRI often shows swelling and enhancement of the facial nerve in the facial canal⁶.

Electromyography and nerve conduction studies show no changes in the first three days. If there is evidence of denervation after 10 days, there may be a long delay in the onset of recovery. The prognosis of Bell's palsy mostly depends on the severity of the lesion⁷. If the

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lesion is incomplete the chances of recovery are more. If some recovery is seen within the first 3 weeks of onset of facial palsy, the prognosis will be favorable.

The management of Bell's palsy is controversial. About 60% of patients recover completely without treatment⁸. Early administration of corticosteroids has been shown to influence the outcome in Bell's palsy. One of the satisfactory regimens is oral prednisolone 1mg/kg/day (maximum 80mg/day), ideally started within 72 hours (maximum 7 days) after onset of symptoms. This is given for 5 days then the dose is tapered off over the next 7-10 days.

The purpose of our study was to determine

Table-I: Age distribution of Bell's palsy patients in the study group.

Age Bracket (years)	No of Patients (%)
11 - 20	6 (18.8%)
21 - 30	10 (31.2%)
31 - 40	9 (28.1%)
41 - 50	4 (12.5%)
51 - 60	3 (9.4%)

Table-II: Duration of Bell's palsy in patients at the time of reporting for second opinion in the study group.

Duration of Symptoms	No of Patients (%)
4 - 7 Days	3 (9.4%)
2nd Week	7 (21.9%)
3rd Week	9 (28.1%)
4th Week	6 (18.8%)
2nd Month	4 (12.5%)
3rdMonth	3 (9.4%)

the frequency of Bell's palsy patients getting recommended doses of steroids at their first consultation with a general physician within 72 hours after onset of their symptoms before seeking advice of a neurologist.

PATIENTS AND METHODS

This was a descriptive observational study conducted at Neurology Clinic of Combined Military Hospital (CMH) Lahore, from Nov 2014 to Feb 2015. Patients suffering from Bell's palsy presenting consecutively to the Neurology clinic of CMH Lahore, treated previously by a general physician within 72 hours of onset of their

symptoms, now seeking a second opinion of neurologist after more than 3 days, were included in the study. Patients suffering from traumatic facial palsy, otitis media and Ramsay Hunt syndrome were not included in the study. Patients suffering from Bell's palsy who did not have their general physician's first prescription were also excluded from the study.

A detailed history was taken at presentation and physical examination was done. Past medical record including laboratory tests and treatments advised by previous physicians in their prescriptions was reviewed. The first prescription of the general physician who saw the patient within 72 hours of onset of symptoms was

perused and advice regarding steroid therapy was ascertained. A dose of prednisolone ≤ 0.5 mg/kg body weight daily for the initial 5 days was considered as sub optimal dose for treatment of Bell's palsy in this study. Similarly, the optimal dose of prednisolone given for < 5 days was also regarded as sub optimal dose for this purpose. SPSS version 17 was used for data analysis and descriptive statistics were used to describe the results.

RESULTS

Thirty two patients, 17 (53.12%) males and 15 (46.88%) females met the inclusion criteria of the

study. Their age range was 14 to 58 years, mean age 32 ± 12.26 (standard deviation) years (table-I). The duration of their illness ranged from 4 days to 3 months (table-II). Among them 18 (56.3%) had right sided Bell's palsy while 14 (44.8%) had left sided Bell's palsy. The most commonly prescribed steroid was prednisolone (tab Deltacortril of Pfizer). Overall, 78.1% (25) of patients received prednisolone; 34.4% (11) patients received recommended doses of steroids, 43.8% (14) received suboptimal doses and 21.9% (7) were not prescribed any steroids by their general physician within the first 72 hours of their presentation (fig).

Thus only 34% of the patients suffering from Bell's palsy and presenting to a general physician within 72 hours of onset of their symptoms received recommended doses of prednisolone while majority of the patients (44 %) received suboptimal doses of prednisolone in our patients.

DISCUSSION

Bell's palsy causes considerable psychological distress and restriction in social activities⁹. Its natural history without treatment has been described by Peitersen. He observed that 84% of patients suffering from Bell's palsy showed signs of recovery within the first three weeks, 71% had complete recovery while 13% had slight sequelae. His 16% patients had continuing facial disfigurement¹⁰. Treatment of Bell's palsy remained controversial and variable¹¹. Adour et al studied the role of steroids in arresting the progression of incomplete facial palsy to complete one. They compared 194 patients with incomplete facial palsy treated with prednisone and 110 untreated patients. No patient in the treated group showed progression to complete facial paralysis while 10% in the untreated group showed complete facial paralysis at followup¹².

Later on Austin et al, observed a higher rate of recovery among their 35 patients treated with prednisone as compared with 41 patients given placebo in their randomized, double-blind, placebo-controlled study¹³. However, not all

studies had shown a benefit of steroid therapy. May et al found no significant difference, after six months, in the rates of recovery between prednisone and placebo groups in their controlled double-blind study¹⁴. Another study randomly assigned 239 patients with Bell's palsy to receive either prednisone or placebo. It did not show any statistically significant difference between prednisone treated patients and control group¹⁵. It had been a common practice to prescribe prednisolone and antiviral agents in combination and separately, although the evidence of their effectiveness had been weak¹⁶.

In another study Adour and colleagues observed that 92% of their patients regained normal facial movements after a 10-day course of

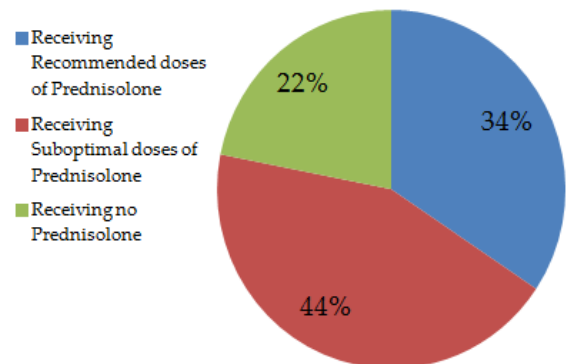


Figure: Frequency of Bell's palsy patients getting recommended doses of prednisolone at their initial presentation to a primary care physician in the study group (n=32).

acyclovir (400mg orally five times daily) and prednisone (60mg/day by mouth for 5 days, then tapered off by 10mg/day for 5 days)¹⁷.

Sullivan et al found that prednisolone 25mg twice daily given by mouth, started within 72 hours of onset, and for a period of 10 days significantly improves the chances of complete recovery of facial palsy. They concluded that in Bell's palsy, when the patient is treated with prednisolone early in the course of the disease, the chances of complete recovery at 3 and 9 months are significantly high. They also came to the conclusion that there was no benefit of acyclovir in Bell's palsy whether given alone or in combination with prednisolone¹⁸.

Hato et al, in their randomized and placebo-controlled study compared the outcome of a combination of valacyclovir (1000 mg/d for 5 days) and prednisolone with placebo and prednisolone in Bell's palsy. They observed that valacyclovir may improve chances of recovery of facial palsy when given in combination with prednisolone¹⁹. Bell's palsy should be treated with steroids at its onset. Early short term oral steroid treatment increases the chances of complete recovery which now has been established by many randomized and controlled trials²⁰. Our study was focused on determining the trend of general physicians in our population with regard to prescribing steroids when a patient with Bell's palsy initially presents to them within 72 hours. We found that in our set up only 34% got recommended doses of steroid treatment. Majority of the patients (44%) were treated with sub optimal doses of steroids while 22% got no steroids. No similar data was found to compare with our study. When a patient with Bell's palsy presents to a physician early in its course, he should be prescribed oral steroids preferably within three days of onset of symptoms. There is no added benefit of acyclovir compared to prednisolone alone and the value of valacyclovir either alone or in combination with glucocorticoids is not known. Oral antiviral therapy alone should not be prescribed. Routine laboratory tests and MRI are not required in patients with typical presentation of Bell's palsy.

CONCLUSION

Majority of the patients suffering from Bell's palsy did not received their optimal doses of steroids when they first reported to a general physician after onset of their symptoms.

CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

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