Rule of vitamin C in the treatment of idiopathic facial paralysis IFP (Bell’s palsy)

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ABSTRACT
This study was designed to show the rule of Vitamin C in the treatment of Bell’s palsy when adding to the treatment of bell’s palsy in compared to treatment without ascorbic acid and how its effect of fastening time of recovery. Six months from February to July 2019, and 60 patients were collected for this study, 22 patients treated with classical treatment for Bell’s palsy, and on the other side 38 patients, we added Vitamin C (500mg) besides classical treatment for Bell’s palsy. The results of the current study revealed that Patients with IFP were treated with vitamin C and classical treatments are gotten complete recovery within 4 weeks (92.1%) as compared to classical treatment alone (14.6%) with significant P value 0.0001. About complete resolution after 4 to 6 weeks, there is no difference between both vitamin C and classical treatment (92.1%) and classical treatment alone (86.4%) with non-significant P-value. About facial resolution, after 6 weeks, there is no difference between both vitamin C and classical treatment (10.5%) and classical treatment alone (10%) with non-significant P-value. It has been concluded that there is the significant value of vitamin C in the treatment of Bell’s palsy as compares with classical treatment alone; but this positive value when treated early and good recovery in the first 4 weeks of IFP. A very good result in the hastening of the recovery period in the first 4 weeks but the same as a classical treatment alone after 4 weeks. In this study, no significant values of vitamin C to prevent complications of IFP.

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INTRODUCTION
Bell’s palsy, (or idiopathic facial palsy) is an acute and idiopathic paralysis of the facial nerve (resulting in unilateral weakness or paralysis of the face). It is frequent turbulence that occurs in (20–30 per 100,000 in the general population) (Rowlands et al., 2002). With 1 in 60 humans being attacked at their life (Holland and Weiner, 2004). The outcome is encouraging as 70% of affected people not take treatment and absolute resolution, 85% have perfect or like perfect resolution within six months (Peitersen, 2002). The remains had consequence, like (moderate to severe paresis), facial contracture; hemifacial-spasm; and-or (synkinesis) (Holland and Weiner, 2004) The exact cause remains not well known, but HSV (herpes simplex virus play important rule as a cause. A prior contemplate exposing that HSV genes were separate from the (geniculate ganglia) (Murakami et al., 1996). The inflammatory process of the facial nerve in the temporal skeletal bone accompany by enlargement and the immunity increase and demyelinate process might be intricate in the pathogenetic process
of IFP (Fisch and Esslen, 1972; Schwaber et al., 1990; Araujo et al., 2008; Burmeister et al., 2011). The management for IFP is stopping the residual. Beneficial approaches are diverse, such as steroids, against viral medications, multivitamins, physiotherapy and operating decompress process (Alberton and Zed, 2006; Chen et al., 2009) conversely, the usefulness of these techniques remainders contentious. In this study, the rule of vitamin C had a good outcome as (Vitamin B12) is it presently recycled in the treatment center for exterior nerve injury (Sun et al., 2012; He et al., 2005). A random experimental optional that; patients preserved with (vitamin B12), unaided or collective with corticosteroids, improved sooner than those preserved with corticosteroids unaccompanied (Sullivan et al., 2007; Jalaludin, 1995). Preceding precise randomized judgments were finished lately, viewing that mixture with multivitamins especially vitamin-B12 and or vitamin C was recovering than classical treatment alone (Chen et al., 2009; Wang et al., 2015; Rekshmy and Dharan, 2016). Consequently, we composed and investigated formerly available educations on the consequence of tolerance with IFP who were preserved with classical treatment unaccompanied or with multivitamins, in an effort to assess the effectiveness of the combination of adding vitamin C to classical management. The numeral of imperfect salvage patients was removed as the consequence catalog. So; this study was aimed to confirm the benefit of ascorbic acid in fastening and decrease residual complications of IFP when adding to classical treatment as compares to classical treatment alone.

PATIENTS AND METHODS

Sixty patients were collected in a period of 6 months in 2019 from February to July. All cases were taken from the consultation clinic in Al-Sader Teaching Hospital in Misan, Amara city, Iraq. Patients divided into 2 groups, one group as adding ascorbic acid (500mg) besides to classical treatment of IFP and was 38 patients. The second group was 22 patients and treated with classical treatment alone in the form of steroids, acyclovir, and physiotherapy with supportive management. The age of all patients from 15 to 45 years and the mean age was 30.5 years.

Inclusion criteria
1) Patients with IFP (Bell’s palsy)
2) Patients managed by classical treatment mutual with vitamin C
3) Patients treated by classical treatment alone
4) Continuation period of at least 6 weeks from early treatment.

Exclusion criteria
1) Evaluation, meta-analysis, or case-report revisions
2) Readings of pregnant females
3) IFP for other explanations
4) Insufficient outcome statistics

Statistical analysis

In the arithmetical investigation of the annoying segment study, the chi-square test was practical for definite variables at equal of meaning alpha = (0.05) using SPSS-21 (Statistical Packages Social Sciences-version 21), in adding to realize the expressive data.

RESULTS AND DISCUSSION

Patients with IFP were treated with vitamin C, and classical treatment is gotten complete recovery within 4 weeks 34 patients (92.1%) as compared to classical treatment alone 3 patients (14.6%) with significant P value 0.0001 and as in Table 1 and Table 2. About complete resolution after 4 to 6 weeks there is no difference between both vitamin C and classical treatment 35 (92.1%) and classical treatment alone 19 (86.4%) with non-significant P-value as in Table 3. About facial residual, after 6 weeks there is no difference between both vitamin C and classical treatment 4 (10.5%) and classical treatment alone 2 (10%) with non-significant P-value as in Table 4.

These meta-analysis consequences specified that the retrieval rate of vitamin C joint with classical treatment was significantly enhanced than classical treatment unaccompanied within 4 weeks but the same after 4 to 6 weeks, P = 0.001, suggesting that 92.1% of (Bell’s palsy) patients who established were vitamin C joint with classical treatment was more significantly likely to attain broad regaining within 4 weeks when equated with those who conventional classical treatment unaided 13.6%. (Liang et al., 2006)

The quantity of whole repossession of the 2 groups within 4 weeks was 92.1% and 13.6%; respectively; and the alteration was statistically significant. Conversely, the current meta-analysis displayed a thinkable incremental advantage of addition vitamin C to classical management and a synergistic result when they were assumed in the mixture. The details for these alterations with other training alteration might be that as in (vitamin B12) was additional to the classical regime as in other studies and the benefit of tonics and vitamins in treatment IFP (Li et al., 2008).
Table 1: Distribution of patient treatment according to gender age and duration of recovery

<table>
<thead>
<tr>
<th>Variables</th>
<th>IFP treated with vitamin C and classical treatment</th>
<th>IFP treated with classical treatment alone</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. Percent*</td>
<td>No. Percentage*</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>24 63.20%</td>
<td>14 63.6%</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>14 36.80%</td>
<td>8 36.40%</td>
<td></td>
</tr>
<tr>
<td>Age &lt; 45 years</td>
<td>6 15.70%</td>
<td>15 68.10%</td>
<td></td>
</tr>
<tr>
<td>Age &gt; 45 years</td>
<td>32 84.30%</td>
<td>7 31.90%</td>
<td></td>
</tr>
<tr>
<td>Complete recovery within 4 weeks</td>
<td>35 92.10%</td>
<td>3 13.60%</td>
<td></td>
</tr>
<tr>
<td>Complete recovery after 4 to 6 weeks</td>
<td>35 92.10%</td>
<td>19 86.40%</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Distribution of patient treatment and control according to duration of recovery

<table>
<thead>
<tr>
<th>Variables</th>
<th>IFP treated with vitamin C and classical treatment</th>
<th>IFP treated with classical treatment alone</th>
<th>Control</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. Percent*</td>
<td>No. Percentage</td>
<td>No. Percentage</td>
<td></td>
</tr>
<tr>
<td>No complete recovery within 4 weeks</td>
<td>3 7.90%</td>
<td>19 86.40%</td>
<td>19 95%</td>
<td>0.0001</td>
</tr>
<tr>
<td>Complete recovery within 4 weeks</td>
<td>35 92.10%</td>
<td>3 13.60%</td>
<td>1 5%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>38 100%</td>
<td>22 100%</td>
<td>20 100%</td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Distribution of patient treatment according to completeness of recovery

<table>
<thead>
<tr>
<th>Variables</th>
<th>IFP treated with vitamin C and classical treatment</th>
<th>IFP treated with classical treatment alone</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. Percent*</td>
<td>No. Percentage</td>
<td></td>
</tr>
<tr>
<td>incomplete recovery after 4 to 6 weeks</td>
<td>3 7.90%</td>
<td>3 13.60%</td>
<td>Nonsignificant</td>
</tr>
<tr>
<td>Complete recovery after 4 to 6 weeks</td>
<td>35 92.10%</td>
<td>19 86.40%</td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Distribution of patient treatment according to facial residual

<table>
<thead>
<tr>
<th>Variables</th>
<th>IFP treated with vitamin C and classical treatment</th>
<th>IFP treated with classical treatment alone</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. Percent*</td>
<td>No. Percentage</td>
<td></td>
</tr>
<tr>
<td>Facial residual after 6 weeks</td>
<td>4 10.5%</td>
<td>2 10%</td>
<td>Nonsignificant</td>
</tr>
<tr>
<td>No facial residual after 6 weeks</td>
<td>34 89.5%</td>
<td>20 90%</td>
<td></td>
</tr>
</tbody>
</table>
In the group study, patients with vitamin C adding to classical management attained meaningfully superior advantage than those with non-vitamin C in the period within 4 weeks (P = 0.0001) but not after 4 weeks and the same risk of neurological facial residual. These answers were reliable like the preceding experimental consequences of (Liu et al., 2006) and (Sun, 2003) in the use of vitamin B12. Prior prosecutions linking the result of vitamin C to classical management displayed that the profit of vitamin C was grander than the assistance of classical management in patients with (Bell’s palsy) (Luo et al., 2009; Wu et al., 2009). However, in our analyses the rule of ascorbic acid not statistically substantial as associated to classical treatment after 4 weeks and the outcome of vitamin C for (Bell’s palsy) to preclude late equally is the same with or without it. Although no same study used vitamin C and the number of patients was small, consequently the decision is not conclusive. If extra revisions that used vitamin C were involved, a more influential investigation would be attained. There was no substantial alteration in the effectiveness of vitamin C on partial recovery when patients preserved with it vs those non-pickled with vitamin C like the study of (Peng et al., 2010) involved patients with acute and (non-acute stages) of disease. Though, the nasty sequence of all patients was 4 weeks; consequently, these were included in the serious historical subgroup. Thus, the influence of this study was feeble. If the data of all patients were obtainable and needed more educations and a large number of patients, the schoolwork might have had a more undoubted deduction. This exploration has restrictions. First: the study involved a slight sum of educations, and the entire quantity of patients was minor. Additionally, these studies lone comprised educations in which vitamin C was directed. Second; the procedural superiority of similar training not so abundant or no training similar it. Nothing of the trainings evaluated the consequence as a sightless study. Therefore, the personal influences of patients, doctors and evaluator may have excessive the outcome of vitamin C. Numerous preceding training ensure exposed that an HSV contagion strength is the chief source of Bell’s IFP; by apparatuses counting the inflammation and resistent demyelination of the (facial nerve). The defensive appliance of vitamin C strength is to preserve the breakdown of myelin, thus it container upsurge the recapture period of (facial nerve) purpose in (Bell’s palsy) patients. In rapid, the result of classical management with vitamin C for (Bell’s palsy) treatment was good and vulnerable more study in the future. In spite of the optimistic product, the scientific result needs more studies and large number.

CONCLUSIONS

It has been concluded that there is the significant value of vitamin C in the treatment of Bell’s palsy as compares with classical treatment alone; but this positive value when treated early and good recovery in the first 4 weeks of IFP. A very good result in the hastening of the recovery period in the first 4 weeks but the same as a classical treatment alone after 4 weeks. In this study, no significant values of vitamin C to prevent complications of IFP.

REFERENCES


