**Abstract**

**GOAL:** The aim of the study was to review the quality of life of the patients with daily chronic headache (CDH) and determine the effectiveness of Botulinum toxin type A (BTA) influence on improving the quality of life by reducing the daily headache.

**MATERIAL AND METHODS:** 54 patients, from both sexes, with a minimum age of 18 years old were studied. The inclusion criteria were the presence of primary daily chronic headache with more than 4-hour duration, a frequency of 15 days or more monthly. For the treatment of CDH was used BTA. The patient’s condition was evaluated on the 3rd day, on the 7th day and on the 15th day after the BTA injection and assessed every 15 days for 3 months.

**RESULTS:** After 3 months 4% patients had no changes, 13% patients with less than 50% reduction in pain, 43% reported 70 to 95% pain relief, and 40% had complete relief.

**CONCLUSION:** The work presented here has profound implications for future studies of BTA injections for patients with CDH.

**Introduction**

Primary HA are a serious medical and social problem, since the prognosis and outcome are usually unpredictable (ICHA of 3rd version, 2014). A particular problem is the chronic forms of primary headaches, among which the most common is chronic migraine, chronic tension type headache (CTTH) and their frequent combination – chronic daily headache (CDH). Conditions are distinguished by severe course, frequent and prolonged disability. The large economic losses associated with this disease, and the significant costs of medicines stimulate a constant search for new treatments.

Botulotoxin type A has been used in clinical practice since 1991 for the treatment of torticollis, hemifacial spasm, blepharospasm, equinoviral deformation of the foot in cerebral palsy and spasticity after stroke. A new perspective direction in the treatment of chronic forms of headache is the use of BTA. The United States Food and Drug Administration (FDA) approved BTA for the prophylactic treatment of Chronic Daily Headache (CDH) in October 2010.

**Methods and Materials**

Fifty-four patients, from both sexes, with a minimum age of 18 years old were studied. The inclusion criteria were the presence of primary daily chronic headache with more than 4-hour duration, a frequency of 15 days or more monthly, in the last three months and a disease duration of 3 years. The exclusion criteria were the patients abusing alcohol, patients under 18 years old and the patients with previous allergic reaction for BTA. The study involved fifty-four patients, of whom where 31 women and 23 men with an average age of 42 years. The patient’s condition was evaluated on the third day, on the 7th day and on the 15th day after the BTA injection and assessed every 15 days for 3 months. The efficacy of BTA was evaluated by several measurements of VAS (Visual Analog Scale), Headache Intake Questionnaire: HSQoLQ (Headache Specific Quality of Life Questionnaire), HMQ (Headache Management Questionnaire), HDQ (Headache Disability Questionnaire) and Headache Diarie which were filling by the patients. For the treatment of CDH was used BTA. The patients totally received 195 U BTA dose, where 155 U of BTA dose were a fixed-site and fixed-dose (each injection was 5-10 U of BTA) and 40 U of BTA with additional specific follow-the-pain sites, which considered depending on individual symptoms.

**Results**

All patients had a history of CDH. Background pain was long, bilateral, more intense, sometimes pulsating, sometimes pressing. Factors that provoke background pain could not be identified. After the 3-months study, there was a statistically significant decrease for the frequency of the pain, numbers of headache-free days and the severity of headaches from the baseline after treatment.

After 3 months of study headache severity after treatment: 2 (4%) patients had no changes, 7 (13%) patients with less than 50 percent reduction in pain, 23 (43%) reported 70 to 95 percent pain relief, and 22 (40%) had complete relief. Table 1.

During the study, BTA was well-tolerated and no any notable adverse events by the patients.

<table>
<thead>
<tr>
<th>Pain score (0-10)</th>
<th>Qty of patients</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No changes</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Less than 50% reduction in pain</td>
<td>7</td>
<td>13%</td>
</tr>
<tr>
<td>70 to 95% pain relief</td>
<td>23</td>
<td>43%</td>
</tr>
<tr>
<td>Complete relief</td>
<td>22</td>
<td>40%</td>
</tr>
</tbody>
</table>

**Discussion**

The obtained data, possibly, will allow expanding the indications for the appointment of BTA and indicating the need for more extensive research.

**Conclusions**

The work presented here has profound implications for future studies of BTA injections for patients with CDH. The obtained results testify to an improvement in the quality of life of patients with CDH against the background of injections of BTA.

**Future Directions**

Further studies are needed in order to determine the role of BTA in CDH patients.

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