COMPARISON THE QUALITY OF LIFE IN CHILDREN WITH TENSION TYPE HEADACHES AND MIGRANES WITH AND WITHOUT AURAS

HASAN KANDEMIR, TANER SEZER, SALIH SELEK, MUSTAFA CALIK, ALI EMHIAN
1 Harran University School of Medicine, Child and Adolescent Psychiatry Department, Sanliurfa, Turkey - 2 Baskent University School of Medicine, Department of Pediatric Neurology, Ankara, Turkey - 3 Harran University School of Medicine, Psychiatry Department, Sanliurfa, Turkey - 4 Harran University School of Medicine, Department of Pediatric Neurology, Sanliurfa, Turkey

ABSTRACT

Aim: Headache is a common health problem that significantly reduces the quality of life of children and adolescents. It can be the result of various causes of pain. In this study we aimed to compare the Health-Related Quality of Life (HRQL) scores of children with tension type headaches, and migraines with and without auras.

Methods: One hundred and twenty seven child and adolescents aged 7-17 and diagnosed with Tension Type Headache (n=30), Migraine with Aura (n=31), Migraine without Aura (n=31) and a healthy control group (n=35) have been included in this study.

Results: According to PedsQL-C, the psychosocial subscale scores, physical health subscales scores and total scores were significantly lower in all headache groups. In comparison to the type of headaches, the tension headache group had significantly lower scores than migraine with or without aura in all subscales of PedsQL-C and PedsQL-P.

Discussion: Multi-dimensional monitoring of the clinical parameters of the disease and its treatment become increasingly important to improve the quality of life in child and adolescents.

Key words: Headache, tension headache, migraine, life quality.

Received June 18, 2013; Accepted June 29, 2013

Introduction

Headaches are common health problems not only for adults but also for children and adolescents. Headaches can be the result of several diseases originating both inside and outside the skull. This is a common health problem that significantly reduces the quality of life of children and adolescents. In children the prevalence of headaches increases with age. The rates are 7% for school age children, and close to 15% for adolescents. The prevalence of headaches in five year old children is 19.5% and increases to 67.5% in children between 13 and 15 years of age. Although broad studies are rare in our country, Zarifoğlu et al. studied children between the ages of 6 and 15 and identified the proportion of those with headaches as 37.5%

Tension type headaches (TTH) are among the most commonly observed types of headaches in children. The most probable causes are emotional factors, the stress of school problems, and family arguments. The pain tends to be diffuse, as if a band is circling the head. Tension type headaches are never accompanied by nausea and vomiting. When treating those who experience tension type headaches, it is common not to give sufficient attention to the psychiatric symptoms that often accompany them. This both increases the difficulty of treatment and reduces the quality of life of those who suffer from them.

Migraines generally occur in episodes of throbbing pain on one side of the head. These headaches have a genetic basis and may involve nausea, vomiting, sensitivity to light and sound and one group of patients also experience aura symp-
Auras can be divided into two types, visual and somato-sensory. The most common type of auras involve blurred vision, flashes of colored lights, scotoma, moving lights and combinations of these signs. Somato-sensory auras may include difficulties with speech, focal motor weakness, and focal changes in sensations.

In recent years the quality of life score, (LQ) has emerged as an important health indicator. The concept of quality of life includes not only measures of a person’s state of health but also of their state of wellbeing. The World Health Organization (WHO) defines the quality of life as “individual’s perception of their position in life in the context of the culture and value systems in which they live”. Quality of life is affected in many ways and the Health-Related Quality of Life (HRQL) instrument measures a range of effects created by both illness and treatment as they are perceived by the patient. Doctors should be able to benefit from knowledge demonstrating the ways that quality of life at early ages may help to protect from and prevent problems that may develop later. This knowledge may also help to indicate beneficial approaches to treatment.

In recent years there has been an increase the number of studies of the relationship between headaches in children and their quality of life. However, there are few studies comparing the different types of headaches. The aim of this study was to compare the HRQL scores of children with tension type headaches, and migraines with and without auras.

Methods

This study is based upon the scores of 127 children and adolescents aged 7-17 as evaluated in a children’s Neurology Polyclinic and scored according to the International Classification of Headache Disorders-II ICHD-II into these groups: Tension Type Headache (n=30), Migraine with Aura (n=31), Migraine without Aura (n=31) and a healthy control group (n=35). Participants were administered the Pediatric Quality of Life Inventory: Parent and child versions (PedsQL-P and PedsQL-C). The validity and reliability of the Turkish version has been established.

The Ethics committee of the Harran University Medical School approved this trial. A semi-structured form was used to identify socio demographic and clinical variables for these patients. The analysis of the data was performed using the Statistical Package for the Social Sciences (SPSS) 11.5 statistical software. Continuous variables were analyzed by the One Way ANOVA, and a chi-squared test was used for categorical variables. The alpha value was accepted as statistically significant when it was less than 0.05.

Results

We found that subjects’ PedsQL-C, their psychosocial subscale scores, their physical health subscales scores and their total scores were significantly poorer in all headache groups (tension, migraine with aura, and migraine without aura) when compared to the control group. According to the PedsQL-P results, psychosocial subscale scores and total scores were significantly poorer in all headache groups. In the tension headache groups PedsQL-P and physical health subscales scores were significantly lower when compared with the control group but there was no significant difference in the physical health subscale scores of the control and migraine groups. When comparing different types of headaches, the tension headache group showed significantly lower scores than the migraine with or without aura groups on all subscales of the PedsQL-C and PedsQL-P.

There were no significant differences between the groups for age (F=1.320, p=0.271) and gender ($X^2=5.683$, p=0.128). Data about age, sex and the results of the PedsQL–C, PedsQL-P scores and statistical comparisons are given in Table 1, Table 2 and Table 3 respectively.

Discussion

There have been a growing number of studies of children’s quality of life and the chronic disorders that may affect that quality. Some studies have found quality of life to be inversely related to headache frequency or severity. There are only a few studies of the quality of life in patients with migraines. These studies have shown lower quality of life scores in patients with migraines in comparison to healthy controls.

Our study showed that based upon low scores as measured by the PedsQL-C and PedsQL-P, headaches have significant effects on children’s quality of life as perceived both by children and
their parents. The results are in agreement with another study done in our country, which evaluated adolescents with migraines who also scored low on the PedsQL-C and PedsQL-P as compared with a control group. When we examine the literature in one study, when compared with healthy controls, quality of life is reduced for patients with both migraine and tension-type headaches, but studies did not find a significant difference between the groups with migraines and the groups with tension-type headaches. In our study we found that the tension headache group had statistically significant lower scores.

One study reported that children with headaches exhibit high levels of emotional, conduct disorders, and inattention-hyperactivity. They showed problems with peers and were significantly more likely to be upset or distressed by their difficulties and to have their difficulties interfere with their home life, friendships, classroom learning, and leisure activities. Slater et al. found that 29.6% of chronic daily headache patients met the criteria for at least one current psychiatric diagnosis, and 34.9% met the criteria for at least one lifetime psychiatric diagnosis. According to Slater et al., children with at least one lifetime psychiatric diagnosis had greater functional disability and poorer quality of life than those without a psychiatric diagnosis. Nodari et al. similarly found that headache negatively influences the quality of life of children and adolescents. Once again, studies have demonstrated that headaches have negative effects on quality of life and school performance.

Any kind of headache may cause difficulties in the social and emotional areas of a child’s life, including a decrease in their self-esteem, unhappiness and a deterioration in interpersonal and family relationships, and may result in a decreased quality of life. Some studies suggest that nearly half of children with headaches do not seek medical help. For this reason, multi-dimensional monitoring of the clinical parameters of the disease and its treatment are becoming increasingly important.

In order to provide proper treatment to children affected by headaches, appropriate evaluation and diagnosis is important. Primary headaches include though varieties, it is appropriate to describe these to increase knowledge and facilitate their recognition, in the absence of specific diagnostic imaging tests. Repetitive, chronic headaches require the removal of triggering factors and appropriate psychiatric evaluation to identify the best treatment modalities to improve patient quality of life.

References


Table 1: Data about age and sex.

<table>
<thead>
<tr>
<th></th>
<th>Control N=35</th>
<th>Mig with A N=31</th>
<th>Mig without A N=31</th>
<th>Tension N=30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex: Male/Female</td>
<td>15/20</td>
<td>11/20</td>
<td>17/14</td>
<td>19/11</td>
</tr>
<tr>
<td>Age: Mean±SD (year)</td>
<td>11.03±2.74</td>
<td>12.13±2.50</td>
<td>10.90±2.71</td>
<td>11.13±2.90</td>
</tr>
</tbody>
</table>

Table 2: The PedsQL-C and PedsQL-P mean and standard deviation values of the study and control groups.

Table 3: F and P values from the PedsQL-C and PedsQL-P.


16) Varni JW, Seid M, Rode AC. The PedsQLTM: The measurement model for the Pediatric Quality of Life Inventory: Medical Care 1999; 37: 126-139.


