MYOFACIAL PAIN DYSFUNCTION SYNDROME (MPDS) IN N.W.F.P -  
A STUDY CONDUCTED ON 100 PATIENTS

*ABDUL QADUS KHAN, BDS (Pesh), FCPS Trainee  
*AMAT ULLAH, BDS (Pesh), FCPS Trainee  
*AMJAD SHAH, BDS (Pesh), FCPS Trainee  
*ZAHUR QAYYUM, BDS (Pesh), FCPS Trainee

ABSTRACT

The present study was conducted at the Department of Oral & Maxillofacial Surgery of Khyber College of Dentistry, Peshawar, Pakistan. One hundred patients were selected. The patients were referred to this department from various parts of NWFP. A comprehensive history of each patient was taken and thorough clinical examination was carried out. All patients were examined by direct manual palpation of TMJ & muscles of mastication. The clicking sound of joint was also recorded. Basic investigation and specific investigations like radiograph such as orthopantomogram were taken to exclude dental and other pathological conditions. The diagnosis of Myofacial Pain Dysfunction Syndrome (MPDS) was established by co-relating different factors such as pain, muscle tenderness, and limited jaw movement. Male were more commonly affected, 80 out of 100 were male and 20 were female. Married persons were 70 as compared to unmarried (n=30). The Parafunctional habits like bruxism, day clinching, nail biting were noted in 40 patients. Moreover, students (n=30) between 15-25 years were affected. And married group of the society were most commonly affected; 70%.

INTRODUCTION

Myofacial pain dysfunction syndrome (MPDS) or facial Arthromyalgia is the most common cause of masticatory pain and limited function for which patients seek dental consultation. According to Arun Chaudhary (2002), in the US currently, MPDS is a commonly seen condition in primary care and dentistry practice. The incidence is ever increasing. At any given time more than 10 million people in the United States are believed to be affected by this painful condition. MPDS primarily affects women, particularly young women. The male-to-female ratio is 1:4. The highest incidence is among young adults; especially women aged 20-40 years.

The majority of patients actually suffering from MPDS get first consultation from the medical people who classify them vaguely on the basis of their symptoms. According to the epidemiological study conducted by Lambert RM, Davis SJ, Quayle AA (1994), this has been estimated that 5 to 70% of the population suffer from the disease but do not seek treatment. The condition thus represents a significant cause of physical and psychological debility in large segments of the population.

The etiology and pathogenesis of MPDS are controversial although they are considered to be multifactorial, such as excess tension in the muscles of mastication, malocclusion between the upper and lower teeth and jaws (dysgnathism), disturbed movement of

* Residents (FCPS II Trainees) in Oral & Maxillofacial Surgical Unit, Khyber College of Dentistry, Peshawar, Pakistan.

Correspondence to: Dr Abdul Qadus Khan, Department of Oral & Maxillofacial Surgery, Khyber College of Dentistry, Peshawar University Campus — Pakistan. Mobile no. 0300-5937046. E-mail: aqkhanmfsurgeon@yahoo.co.in
the jaw joint, displacement or abnormal position of the jaw joint, luxation/dislocation or arthritis, and excess or limited motion of the joint, injury of the jaw or face. No work has been done so far to study the symptoms and the predisposing factors leading to MPDS among the people of NWFP. The aim of this study was to determine the incidence & frequency of MPDS in NWFP.

**PATIENTS AND METHODS**

A prospective survey of 100 patients was carried out at the Oral and Maxillofacial Unit of Khyber College of Dentistry, Peshawar. The study was conducted from January 2003 to January 2004. A comprehensive history of the presenting complaints, nature of symptoms, and history of trauma, past medical and dental history was taken. The family & socioeconomic history including the marital status and history of para-functional activity was also explored. All patients were examined by direct manual palpation of TMJ, muscle of mastication as well as neck and shoulder muscle. Mouth opening was measured to evaluate mastictory apparatus. The range of jaw movement, the lateral deviation and the presence of joint sounds were noted. A thorough clinical oral examination was carried out. Basic investigation included blood count & determination of RA factor while specific investigation included MRI, CT scan etc (these investigations could not be done due to lack of facilities and funds). Radiographs such as Orthopantomogram were taken to exclude dental and other pathological conditions. To summarize, the diagnosis of MPDS was established by following criteria; presence of pain, muscle tenderness, limitation of jaw movements, occlusal disharmonies, and other pathology.

**RESULTS**

Male constituted 80% of the studied subjects (100 patients) as shown in table 1. The examined group ranged from 20 to 60 years. The maximum number of patients of both the sexes were between 20 to 40 years of age. (Fig 1) The incidence among the married group was the highest; 70%, (Fig 2). Students formed the largest group in this study; 30%, (Table 2). Different para-functional habits like bruxism, day clenching and nail biting were reported in 40% of the patients as illustrated in Fig 3.

**TABLE 1: AGE AND SEX DISTRIBUTION OF THE PATIENTS**

<table>
<thead>
<tr>
<th>AGE</th>
<th>Less than 20 years</th>
<th>20-40 years</th>
<th>41-60 years</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEMALE</td>
<td>0</td>
<td>15</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>MALE</td>
<td>20</td>
<td>40</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>55</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Students</th>
<th>Businessmen</th>
<th>Housewives</th>
<th>Labourers</th>
<th>Government Servants</th>
<th>Working in private sector</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>25</td>
<td>15</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>

**Fig 1. Age and Sex Distribution**

**Fig 2. Marital status of the patients**
DISCUSSION

Before the controversial assumption of Costen (1934) that close bite was the cause of MPDS, little was known about the pathophysiology of the disease. Today we accept the fact that the teeth, jaws, joint structures and facial muscles are all parts of an integrated masticatory system and that all must be evaluated to arrive at the most specific diagnosis and management protocol. Reported prevalence of MPDS differs from study to study because of methodological errors and lack of standard definition of MPDS.

One major problem in the study of MPDS is that the distinction between diseased and non-diseased joint is not always clearly defined. For instance joint related symptom namely the presence of the joint noise is not well defined.

Healthy joint may sometime produce noise. Moreover a joint may click for many years without being painful. The result of this study is not compatible with other international studies. Females are most commonly affected by MPDS. But in our study male were commonly affected. This may be due to the fact that in NWFP the society is male dominated. Men work outside where life is tough while the women usually work at home, so the life is comparatively easier and may be tension free.

Moreover, students (30%) and married group (70%) of the society were most commonly affected. It may be because the students are exposed to the stress of examinations while in married group it may be the financial burden of costly living that keeps them under stress.

CONCLUSION

This study shows different results than other international studies. The male was the predominant factor as compared to female that was cited as the most common in the international literature. In our study out of 100 patients, 80 were male. Therefore percentage wise, the incidence was found to be higher in male.

REFERENCES