Original Article

DELAYED CONSULTATION OF PATIENTS HAVING TEMPOROMANDIBULAR JOINT ANKYLOSIS WITH AN ORAL AND MAXILLOFACIAL SURGEON – FACTORS RESPONSIBLE FOR IT

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ABSTRACT

Objective: *To find out the factors responsible for delay in seeking consultation by patients having Temporomandibular joint Ankylosis.*

Materials and Methods*: All the patients of Temporomandibular joint ankylosis visiting Oral and Maxillofacial Surgery Department at Khyber college of Dentistry Peshawar from 1st January 2009 to 31st December 2009 were included in the study. Patient's gender, age, address, socio-economic status, educational level of parents, history of disease, health care professional initially contacted and delay in seeking consultation with an Oral and Maxillofacial Surgeon were documented.*

Results: *Out of 60 patients, 33 were males and 27 were females. Majority of them (86.7%) were from Khyber Pakhtunkhwa with 83.3% having history of previous trauma. 51.7% of the patients initially contacted local practitioners, 10% contacted trained Medical specialists, 15% consulted an Oral and Maxillofacial Surgeon without prior referal while 23.3% did not consult any health professional. Overall, 50 patients were delayed in consultation with an Oral and Maxillofacial Surgeon. The mean delay was 9.1±9.05 years (1-50 years).*

Conclusion: *Poverty, illiteracy, mis-diagnosis or non-diagnosis of condylar fractures due to lack of trained specialists, improper follow up and the trend of non-referral to the specialized health professionals are the main factors delaying consultation of patients, having TMJ ankylosis, with an Oral and Maxillofacial Surgeon.*

Key words: *TMJ ankylosis, delayed consultation, General Practitioners, Oral and Maxillofacial Surgeon.*

INTRODUCTION

Temporomandibular joint (TMJ) ankylosis is a structural disease which produces a disability consisting of permanent inability to open the mouth and facial deformity.[1] The degree of clinical deformity depends upon the age of onset and duration of ankylosis.[2] The younger the patients at the time of condylar damage and the longer the period of ankylosis before treatment, more severe will be the degree of disability and deformity.[3]

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TMJ ankylosis primarily develops because most of the TMJ fractures in children are undiagnosed and consequently untreated.[4] Evaluation of the agitated child in the emergency department is a difficult task for the trauma team.[5] The difficulty in history taking, the trouble in obtaining plain radiographs, and the presence of other more serious injuries in the acute stage elsewhere in the body makes diagnosis difficult.[6] The difficulty of controlling a distressed child, the need to position the head, and the overlap of multiple anatomic structures of the small pediatric skull, plain skull films become almost useless. This combination of unfavorable conditions may not allow the clinician to establish a proper diagnosis.[5] Failure to recognize the presence of a condylar fracture may result into late complications of future growth disturbances and facial asymmetries.[7]

Other factors responsible for delaying treatment of condylar fractures are the low socio-economic status, poor educational levels of the patients and non availability of trained surgical and medical professionals.[6,8] Most of the patients are from less informed population without easy access to the speciality[9]. They generally present to their General Practitioners, Dentists or emergency departments with abnormalities that require the expertise of specialists in Oral and Maxillofacial Surgery.[10] Optimal results can be achieved only after a complete assessment and development of a long-term treatment plan and follow-up.[11,12]

The purpose of this study is to highlight the factors responsible for delaying consultation of the patients, having TMJ ankylosis, with an Oral and Maxillofacial surgeon (OMFS).

MATERIALS AND METHODS

The data for this study was compiled from 60 indoor and outdoor patients of TMJ ankylosis visiting for the first time to the Department of Oral and Maxillofacial Surgery at Khyber College of Dentistry Peshawar from 1st January 2009 to 31st December 2009. Patient gender, age at the time of presentation, income status and literacy level of parents was noted. Presenting complaints, previous history of trauma or local and systemic illnesses, age at the time of initial injury, clinical features and level of health care facility initially contacted was documented. The delay in seeking treatment from an Oral and Maxillofacial Surgeon since the time of the first apperance of symptoms of TMJ ankylosis by patients or parents was noted.

Patients or parents who contacted immediately with an Oral and Maxillofacial Surgeon after trauma or observing the disability of TMJ ankylosis were categorized as "patients with no delay". The delay which was because of patients/parents ignorance or poverty was considered as "delay on part of patient," whereas the delay which was because of misdiagnosis, non diagnosis, improper follow up and non referral by the Dental/Medical practitioners was considered as "delay on part of practitioners". This delay was recorded in years. The data so collected was used for this study.

RESULTS

In this study, 60 patients of TMJ ankylosis were included, out of which 33 patients (55%) were males and 27 patients (45%) were females with male to female ratio of 1.2:1. The mean age of these patients was 14.33±10.18 years (4-65 years) with 45% of the patients being in the age range of 1-10 years (Table 1).

86.7% of these patients reported from different areas of Khyber Pakhtunkhwa (KPK), 6.7%

Table 1: Age distribution of the patients

Age range (years)	Frequency (n)	Percentage
1-10	27	45
11-20	21	35
21-30	10	16.7
31-40	1	1.7
>40	1	1.7
Total	60	100

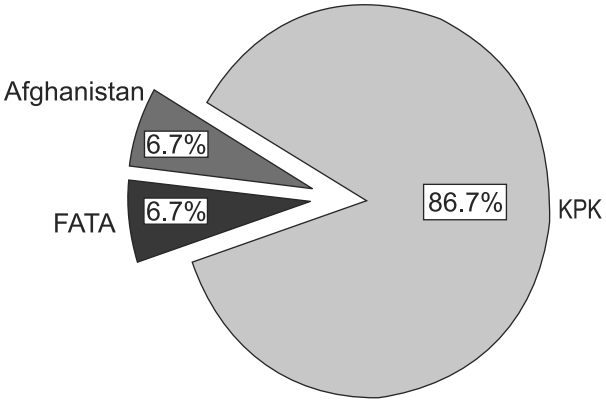

Fig. 1: Geographical Distribution of patients

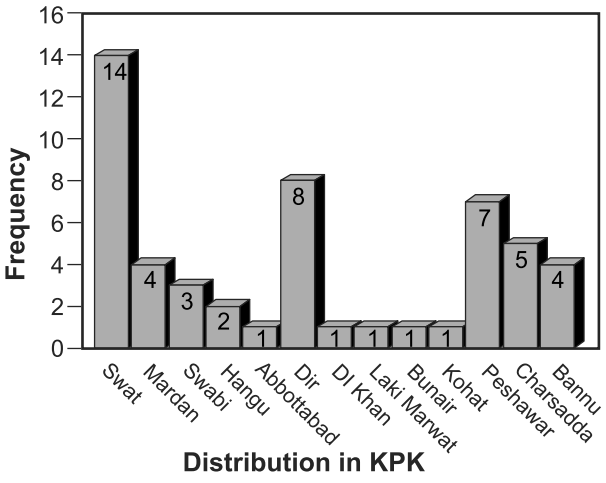

Fig. 2: Geographical Distribution in KPK

belonged to Federally Administered Tribal Areas (FATA) and 6.7% were from Afghanistan (Figure 1). In KPK, mostly the patients were from Swat (26.9%), Dir (15.4%) and Peshawar (13.5%). Geographical disribution of the patients in KPK is shown in Figure 2. Majority of these patients (53.3%) were from poor families, 31.7% had satisfactory socio-economic status while only 15% had good socio-economic background (Figure 3).

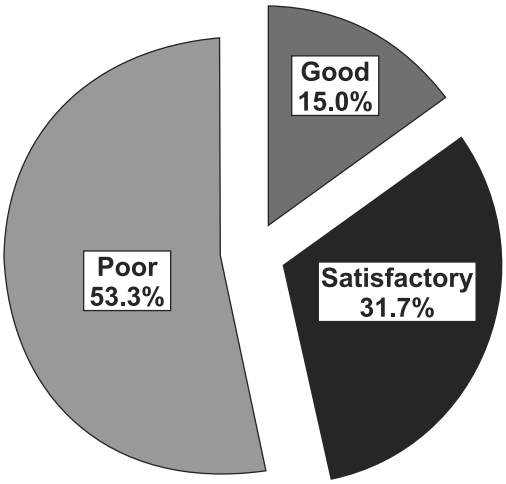

Fig. 3: Socio-economic status of the patients

The parents of 34 patients (56.7%) had no formal education, 12 parents (20%) had received only Primary education, 11 parents (18.3%) had Secondary education and only 3 parents (5%) had received education above Secondary level (Figure 4).

Trauma was the etiological factor in 83.3% of the patients, infections 6.7%, inflammatory diseases 1.7% while in 8.3% cases etiology was not known (Figure 5).

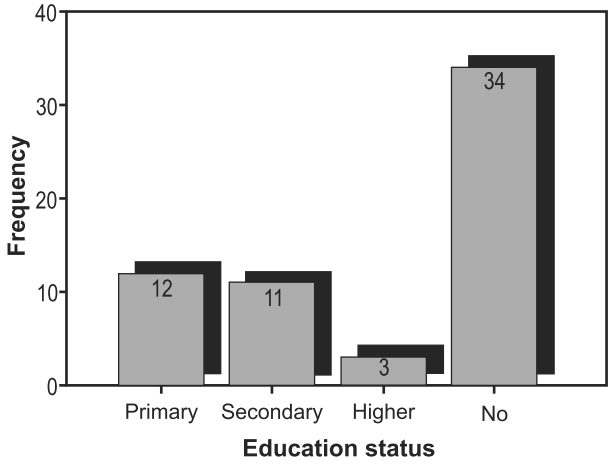

Fig. 4: Education status of the parents

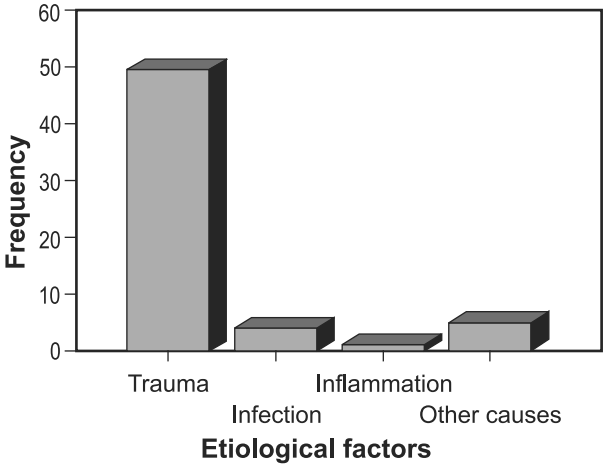

Fig. 5: Etiology of TMJ ankylosis

Out of 60 patients, 31 patients (51.7%) first contacted the local practitioners (Dental/Medical). The initial treatment provided to these patients was only repair of the chin lacerations and medication. No radiographs were advised to these patients and no diagnosis of condylar fractures was made. Six patients (10%) sought advice from Medical specialists for their local or systemic diseases. They were treated for these diseases but their facial deformity was misdiagnosed as paralysis. Only nine patients (15%) initially contacted OMFS. 14 patients (23.3%) did not consult any health care professional (Figure 6).

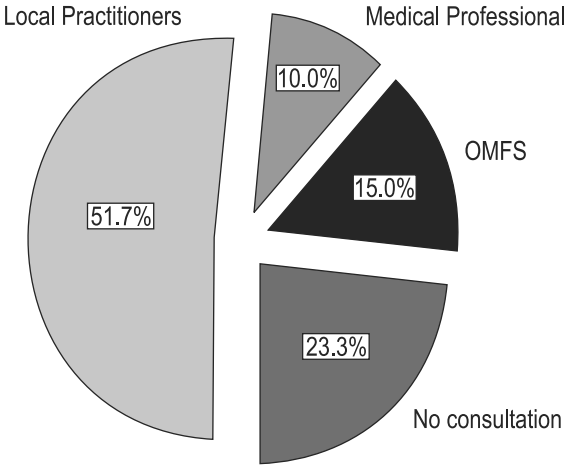

Fig. 6: Health care professionals initially contacted

Of these 37 patients who contacted local practitioners or Medical specialists, referral to an OMFS was done in 18.9% cases while in 81.1% cases no referral to OMFS was made (Figure 7).

Among the 40 patients who had history of fall or RTA, only 25% cases were followed up by their

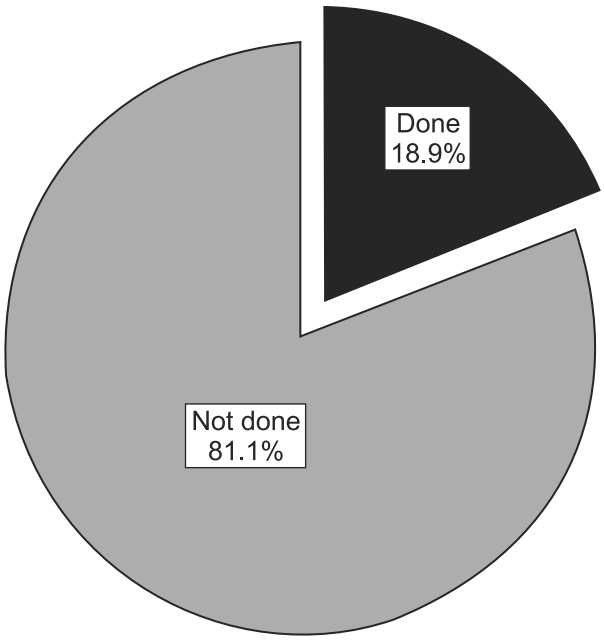

Fig 7 . Referral to specialty

health care professionals and no follow up was done in 75% cases (Figure 8).

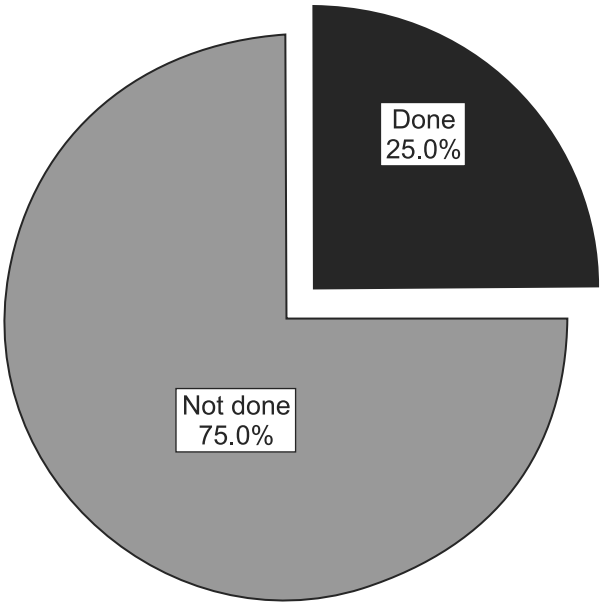

Fig. 8: Follow- up of the patients

Also, 33.3% patients were delayed in consultation with an OMFS because of their own negligence or poverty. Among these patients, 60% were delayed because of their own negligence while 40% could not consult any health professional because of their poverty (Figure 9).

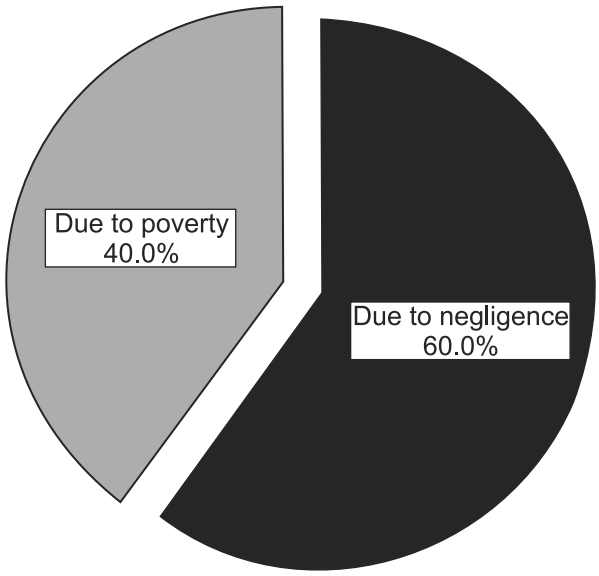

Fig. 9: Delay on part of patients

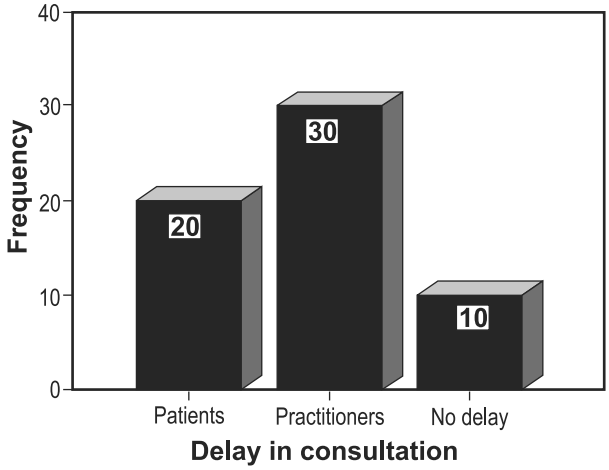

Fig. 10: Delay in consultation

Table 2: Delay in consultation in years

Delay in Years	Frequency(n)	Percentage
1-5	22	44.0
6-10	14	28.0
11-15	4	8.0
16-20	6	12.0
>20	4	8.0
Total	50	100.0

Thus overall, 51 patients were delayed in consultation with an OMFS. 51.7% were delayed because of local practitioners and Medical specialists, 33.3% were delayed because of their own negligence and

poverty while 15% had no delay (Figure 10). The delay was between 1-5 years in 44% cases followed by 6 to 10 years in 28% cases (Table 2). Mean delay was 9.1±9.05 years (1-50 years).

DISCUSSION

TMJ ankylosis is a disease which is increasingly becoming rare in the Western world; however it remains a common problem in the developing countries.[13] It is more common in the younger age group as demonstrated by our study in which 45% of the patients were in the age range of 1-10 years. Khan[13], Topazian,[14] and Shashilciran[15] also reported the high incidence of ankylosis below the age of 10. Male predominance (55%) in our study was in accordance with the studies of Ansari[1] and Khan[6] (56.7%) (60.3%) while in studies of Long[16] and Cheema[17] females were forming the predominant group. The relatively high number of male patients in our study may be due to the fact that male children are actively involved in sports and outdoor activities as compared to females. Also because of socio-cultural restrictions in our society especially in Khyber Pakhtunkhwa and FATA, females are not usually presented for treatment.

When we traced the history of these patients 83.3% reported the history of trauma in past. This was accordence with the studies of Topazian[14] and Sawhney[18] in which trauma was found to be the etiological factor in 29-98% of the cases.

It was noticed that the degree of facial deformity in TMJ ankylosis was duration related and disease was more severe in the cases having duration of more than 5 years. Ansari[1] also reported similar observation. Majority of these patients belonged to peripheral areas of Khyber Pakhtunkhwa and FATA where there is lack of proper health care centers and trained specialists. The lack of trained specialists as an important factor in delaying treatment of condylar fractures is also pointed out by Lee[19] and Oji[20] in their studies. Unfortunately, due to the lack of trained specialists, 75% of our trauma patients remained undiagnosed for condylar fractures. Akhtar[8] and Cheema[17] in their studies have also reported that ignored or mismanaged trauma is the primary factor for delaying treatment of TMJ ankylosis in Pakistan.

In a retrospective study by Khan[6] 90% patients remained undiagnosed for condylar fractures. Jain et al[21] in a retrospective study reported that TMJ ankylosis was primarily because of delayed or non treatment of condylar fractures. Dimitroulis[22] in his study on condylar injuries in growing patients has stated that an important reason for condylar fractures being remained undiagnosed is the universal perception that most condylar injuries require no surgical intervention. Probably very few dentists examine their patients for the possibility of condylar injuries of the mandible. Also, there is decreased awareness among the dental practitioners regarding close monitoring of condylar injuries through regular follow up. This was true in our study because in 96.8% of our patients no attempt at diagnosis of condylar injuries was made, no radiographs were advised and no follow up was done in all these patients who initially contacted local practitioners.

Also, the trend of referral to the specialists is not established in Pakistan where 30% to 35% of the population is urban, while the remaining rural population lives in areas which vary between being well-serviced to those which are totally inaccessible[23]. Access to the specialists is mediated mostly by General Practitioners in Pakistan and especially in Khyber Pakhtunkhwa where 83% of the population is living in the rural areas. The concept of self consultation with a trained specialist is not well established in our country because of the low educational levels of the patients. They are not aware of consultation with a specialist for a particular disease and only rely on their General Practitioners for solving their health problems. Particularly, awareness regarding Oral and Maxillofacial surgery is not only lacking among the population but also among the health professionals. An earlier study conducted by Ameerally et al[24] in England, revealed that 79% of the general public had never heard of Oral and Maxillofacial Surgery. This was evident by our study in which only 15% patients had self consultation with an Oral and Maxillofacial Surgeons while 51.7% initially consulted the local General practitioners. Lack of awareness regarding the scope of Oral and Maxillofacial Surgery among these local practitioners was evident by the referral of 18.9% patients. Hajeri[25] in his study reported a referral rate of 4%.

In a developing country like Pakistan, poverty is a great issue creating hindrances to the proper health development because people cannot pay for basic human needs and health care services. Individuals who are poor also lack adequate education to make

appropriate decisions about health and prevention of disease. They often have less knowledge about activities to promote health and when to access health care. Our study demonstrated this fact as 33.3% of our patients did not consult health professionals because of their negligence/ lack of awareness (60%) and poverty (40%). Khan,[6] Akhtar[8] and Shah[26] have also noted that these factors are the main cause of late diagnosis in Pakistan. In Khan's[6] study, 88.3% of the patients belonged to a lower middle class family and 11.7% were from a middle class family. 81.7% of his patients with TMJ ankylosis were uneducated and 18.3% had primary education only as they could not continue further education due to their disability. In our study, 56.7% of the parents were illiterate while 20% had only primary education. We recorded the educational levels of the parents because most of the patients had history of trauma at a younger age group when it was the responsibility of their parents to seek advice from appropriate health care centre.

It is crucial that early diagnosis and management of TMJ ankylosis are undertaken if the worst sequelae of this condition are to be avoided.[27] Every dentist and local practitioner (Medical/Dental) is in a unique position to help these patients by proper follow up and referral to an Oral and Maxillofacial Surgeon.

An ehical code for everybody in health care should be that doctors must support access to health care as a universal human right if the cycle of poverty and ill health is to be broken.[28]

CONCLUSION

It is concluded that patients/parents themselves as well as local General practitioners are responsible for delaying treatment of TMJ ankylosis. Delay on part of patients is because of poverty, lack of awareness and illiteracy while mis-diagnosis, non-diagnosis of condylar fractures, improper follow up and non referral to an Oral and Maxillofacial Surgeon are the factors responsible for delay on part of local General practitioners (Medical/ Dental). There is a need to create awareness regarding the scope of Oral and Maxillofacial Surgery among the population and health professionals.

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