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Research Article

**TRIGEMINAL NEURALGIA AMONG ORAL
MAXILLOFACIAL AND NEURO SURGEONS IN PAKISTAN**

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Abstract:

Introduction: Trigeminal neuralgia (TN) is defined by the International Headache Society (IHS) as “unilateral disorder characterized by brief electric shock-like pains, abrupt in onset and termination, and limited to the distribution of one or more divisions of the trigeminal nerve. **Objectives:** The main objective of the study is to analyse the trigeminal neuralgia among oral maxillofacial and neuro surgeons in Pakistan. **Material and methods:** This descriptive study was conducted in health department Punjab during January 2019 to July 2019. The data was collected from 100 participants. A self-administered, close ended questionnaire comprising of 18 questions was distributed among the participants. The questionnaire was distributed to 126 practitioners of which 100 participants responded to the questionnaire. **Results:** The data was collected from 100 participants. Out of these 58 were oral maxillo-facial surgeons while 42 were neuro -surgeons. **Conclusion:** It is concluded that the management of trigeminal neuralgia is a challenge both for neuro-surgeons and oral maxillofacial surgeons.

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INTRODUCTION:

Trigeminal neuralgia (TN) is defined by the International Headache Society (IHS) as “unilateral disorder characterized by brief electric shock-like pains, abrupt in onset and termination, and limited to the distribution of one or more divisions of the trigeminal nerve. The IHS suggests a classification of TN as either classic (essential or idiopathic) TN (CTN) or symptomatic TN (STN; pain indistinguishable from that of CTN, but caused by a demonstrable structural lesion other than vascular compression) [1].

The diagnosis of CTN requires the absence of a clinically evident neurological deficit. CTN starts in the second or third divisions, affecting the cheek or the chin. The ophthalmic division alone is involved in less than 5% of cases [2]. The single attack generally lasts from less than a second to a few seconds, but it may present in clusters of variable intensity with up to 2 minutes duration. In many cases it is followed by a brief refractory period during which a new stimulation is not able to evoke another attack [3].

Trigeminal neuralgia (TN) is a prototypic neuropathic facial pain syndrome characterized by paroxysmal, shock-like pain attacks located in the somatosensory distribution of the trigeminal nerve. The prevalence of trigeminal neuralgia in the general population is 0.015%. Trigeminal neuralgia is also known as Tic Douloureux and occur most frequently in patients over 50 years of age [4]. Characterized by unilateral sharp, electric shock like facial pain, lasting for brief period of seconds to 1 minute. Facial pain has a considerable impact on quality of life.

The patient can sometimes benefit from long remissions without any treatment. With the exception of multiple sclerosis and of uncommon cases of posterior fossa tumours or other lesions impinging on the trigeminal nerve, ganglion or root,

TN is considered as “idiopathic”. Some benign abnormality had for long been suspected [5]. The current opinion is now in favour of a “neurovascular conflict”: an artery, most often a loop of the superior or antero-inferior cerebellar artery, has an offending contact with the trigeminal nerve root, which results in localized demyelination and ectopic triggering of neuronal discharges. This hypothesis is in agreement with the relief provided by antiepileptic drugs and is supported by recent neuroimaging data [6].

Objectives

The main objective of the study is to analyse the trigeminal neuralgia among oral maxillofacial and neuro surgeons in Pakistan.

MATERIAL AND METHODS:

This descriptive study was conducted in health department Punjab during January 2019 to July 2019. The data was collected from 100 participants. A self-administered, close ended questionnaire comprising of 18 questions was distributed among the participants. The questionnaire was distributed to 126 practitioners of which 100 participants responded to the questionnaire. The questionnaire comprised of questions like the number of new and refractory patients encountered by the clinicians. The surgeons were asked about the method of diagnosis and investigations they preferred. The type of treatment recommended by them that is either medical or surgical was inquired. The drug of choice of neuro-surgeons and oral maxillo-facial surgeons to treat patients with trigeminal neuralgia was evaluated too.

The data was collected and analysed using SPSS version 19. All the values were expressed in mean and standard deviation.

RESULTS:

The data was collected from 100 participants. Out of these 58 were oral maxillo-facial surgeons while 42 were neuro -surgeons.

Table 01: Analysis of number of participants, neurosurgeon, and oral maxillofacial surgeons with their practical experience

Variables	OMFS	NS	P-value
Number of practitioners	58	42	
Private practitioners	17	13	0.10
Institute	41	29	
Years of experience			
Less than 5 years	13	12	
Between 5 and 10 years	29	15	0.041
More than 10 years	16	15	
Patients encountered in 30	days		
Less than 5	18	09	0.10
Between 5 and 10	32	19	
More than 10	08	14	

Table 02: Analysis of treatment which they used previously

Variables	OMFS	NS	P-value
Treatment used previously			
Pharmacologica	37	18	
Percutaneous injections	18	20	0.556
Open surgery	03	04	

DISCUSSION:

Trigeminal neuralgia is a condition that is well known for its impact upon decreased quality of life and negative impact upon productivity potential [7]. Pharmacological therapy is getting more attention as a treatment option for trigeminal neuralgia. According to the European federation of neurological societies guidelines on neuropathic pain assessment and American academy of neurological guidelines patient who are refractory to medical treatment compromising at least two adequately dosed drug including carbamazepine should be considered for surgical intervention [8-9].

CONCLUSION:

It is concluded that the management of trigeminal neuralgia is a challenge both for neuro-surgeons and oral maxillofacial surgeons. The lack of a full comprehension of the complex patho-genesis at the basis of trigeminal neuralgia remains a key factor.

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