

## **The Prevalence of Temporal-Mandibular Injury in the Oro-Maxillo-Facial Surgery Department of Qsut**

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### **Abstract**

**Objective:** TMJ disorders are very frequent. We can find them in 62% of the population. Often these disorders are treated using therapeutically methods. When this treatment results unsuccessful, then the surgical treatment is considered. All over the world the incidence of condyle fractures, intraarticular disk and ligament pathologies are increasing. Regarding the treatment there are controversial opinions on choosing between bimaxillary fixations, osteosynthesis with mini plates and inter rigid fixation for condyle fractures. While it is still being used Gap Arthroplastic and replacement of fossa glenoida and condyle with several implants in the case of ankylosis. The objective of this study was to identify the most frequent pathology of TMJ and their treatment and developing objectives of this surgery in our country

**Methods:** This is a retrospective study. 72 patients were included in this study between 2005-2013. Data as age, gender, profession etc. were taken from the patients. All the data was analyzed.

**Results:** In 72 hospitalized patients 62 of them, 86% have been treated for condyle fractures, 6 (8,3%) for TMJ ankylosis and 4 (5,5%) for TMJ dislocation. Also it results that in condyle fractures in 62 patients, 51 were males (82%) and 11 females (18%). The most frequent causes are car or motorbike accidents (45 patients) and aggression (17 patients or 28%).

**Conclusion:** the fracture of the condyle, combined are encountered mostly in all the traumatic pathologies of ATM in our country. The osteosynthesis of the condyle is used more than bimaxillary fixation. Also the ankylosis shows a decrease of the total number. In our country we see the lack of arthroscopy and we hope that in the future we can make efforts for using it.

**KEYWORD:** Prevalence, temporal-mandibular injury, Oro-maxillo-facial surgery

### **INTRODUCTION**

TMJ disorders are very frequent. We can find them in 62% of the population. Often these disorders are treated using therapeutically methods. When this treatment results unsuccessful, then the surgical treatment is considered. All over the world the incidence of condyle fractures, intraarticular disk and ligament pathologies are increasing.

### **HISTORY**

The TMJ disorders have been treated since the early age in medicine history. The very famous Hippocrates Method for the reduction of TMJ dislocation is used. As well as, it is believed that Chinese and Egyptian medicine have studied TMJ even earlier.

## PURPOSE OF THE STUDY

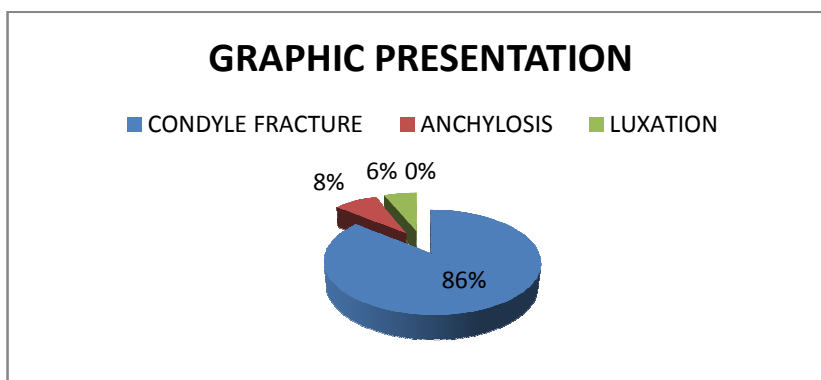
This is a statistical retrospective clinical study. Through it we have tried to point out what are the most frequent pathology of TMJ and their treatment and developing objectives of this surgery in our country.

## MATERIAL AND METHOD

There are 72 patients undergoing our study. They are hospitalized at the Maxillofacial Surgery Department in QSU "Nene Tereza", Tirane between 2005-2013. All their medical records have been reviewed according to the specific intervention. The incidence of these disorders is studied according to age, gender, and geography, pointing out which of these disorders are more frequent, their causes, the combination with other pathologies and several surgical techniques used. All these results have been compared to other countries. Also there are analyzed 1585 patients who have been presented in our emergency department. In this patients only gender incidence, treatment and advices given are included in the study.

## RESULT

During this study we have calculated these results : In 72 hospitalized patients 62 of them, 86% have been treated for condyle fractures, 6 (8,3%) for TMJ ankylosis and 4 (5,5%) for TMJ dislocation. Also it results that in condyle fractures in 62 patients, 51 were males(82%) and 11 females (18%). The most frequent causes are car or motorbike accidents (45 patients) and aggression (17 patients or 28%). There are some evidence of fracture cases affecting condyle and other associated fractures.



### Geographic presentation :

Meanwhile the geographic expansion is :

Tirana	65.3%
Fieri	10.1%
Shkodra	10.1%
1.6% from Lezha, Burreli, Durresi, Kukesi, Skrapari, Tepelena, Berati, Gjirokastra, Korca.	

In terms of treatment in 62 patients it has resulted that 26 of them or 41.6% have been treated with bimaxillary fixation, 15 of them or 25% with osteosynthesis with miniplates, 8 patients or 12.5% with condylectomy, 11 patients or 16.6% are treated with bimaxillary fixation and osteosynthesis with mini plates. And 2 patients are treated with condylectomy and osteosynthesis with miniplates. We have to emphasize that the bimaxillary fixation has been used for 12 days in ages up to 18 years old and 14-18 days in older ages. Regarding osteosynthesis it results in 15 patients out of which 14 one are executed by extra oral way mostly sub angular incision and one by intraoral way, a parallel incision to the mandibular ramus. Condylectomy has been used in apical fractures.

There have been 6 patients treated for ankylosis of TMJ , 5 of them females and 1 male. They have been undergoing these techniques :

- Gap Arthroplasty and condylectomy
- Gap Arthroplasty and condylectomy with temporal muscle flap
- Condylectomy with free cutaneous flap

Days of hospitalization 7-10 days.

There are two hospitalized patients for TMJ dislocation. In the cases a reduction of the dislocation was done under general anesthesia and Hippocrates Bandage for 12 hours. These patients we undergoing a soft and juicy diet.

## **DISCUSSION**

Nowadays in the entire world it is paid a special attention to TMJ disorders. In our study it has resulted that the most frequent disorders at our service are the condyle fractures 86% (while in France it results 56%). In our cases it results that in 18% of the traumas it is involved the condyle, while in the world 35%. Regarding to the female-male ratio it is the same. Regarding to the treatment there are some controversial opinions on using the bimaxillary fixation in mandibular protrusion and miniplates osteosynthesis or the intern rigid fixation. At our service, it has results that the technique used mostly is the bimaxillary fixation for 12-14 days in 41.6% and the mini plates osteosynthesis in 25%. It is notices a significant increase of condyle osteosynthesis compared to the previous times. Also it is to be emphasizing that the wide use of bimaxillary fixation has been as a result of the patient's choice, after they having been told the two techniques and their consequences. In analogy with other countries it is obvious the lack of arthroscopy in our country and therefore the range of the pathologies treated her is low.

## **CONCLUSIONS**

According to the dates of this 8 years study, the conclusion is that the fracture of the condyle, combined are encountered mostly in all the traumatic pathologies of ATM in our country. The osteosynthesis of the condyle is used more than bimaxillary fixation. Also the ankylosis shows a decrease of the total number. In our country we see the lack of arthroscopy and we hope that in the future we can make efforts for using it.

## REFERENCES

1. Prof R.Isufi, A. Qendro, E.Bardhoshi, Kirurgjia Oromaksilofaciale 2010 812-855.
2. J.Fchassagne, E.Simon, Pathologie Nontramatique De L'articulation Temporomandibularie 2003, El-Sevier Massons SAS 2003; 43 1-15.
3. Goudout P.Heresson C. Pathologie De L'articulation Temporomandibularie, El-Sevier Massons 2003 1-255.
4. Dargaut J.Vinka-Puhaka H.Coton F.Delcorso M.Bruj J.Vialle B.Kahl P., Etude de L'articulation Temporomandibularie, El-Sevier Massons 2008 1-2 1-455
5. Flash Volume 6: Number 2 - Siemens – Novembre 2003 1-145.