IMPORTANCE OF PHYSIOTHERAPY IN POSTOPERATIVE TMJ ANKYLOSIS PATIENTS

Mohammed Sheeba Kauser [1],Akheel Mohammad[2]

ABSTRACT

Temporomandibular joint ankylosis is the bony or fibrous fusion of the temporomandibular joint affecting any age group. This article brings out the importance of physiotherapy in post-operative TMJ patients performed in 11 patients with a preoperative mean mouth opening of 5 mm to postoperative mouth opening of 37.5mm after 6 months. An expert physiotherapist is always needed to manage postoperative temporomandibular joint ankylosis patients.

Key words: Physiotherapy,TMJ Ankylosis

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INTRODUCTION

Temporomandibular joint (TMJ) ankylosis is the bony or fibrous fusion of the temporomandibular joint affecting any age group. Various etiologic factors are related to it like congenital , developmental birth trauma, infections, middle ear infections, autoimmune disorders etc[1-3].TMJ ankylosis is often seen in developing countries like India and some parts of Asia with high incidence rate when compared to other developed countries. Down the decades various treatment protocols were given depending upon the onset of occurrence related to the age of the patient which causes severe functional and esthetic deformities of maxillofacial complex[4,5].

MATERIAL & METHODS

11 patients were operated for TMJ ankylosis in department of oral and maxillofacial surgery during 2011 to 2012. The age group of the patients were from 6 years to 35 years (Table I) which included 6 males (55%) and 5 females (45%) (Table II). All patients underwent physiotherapy from 3rd day of the surgery with the help of expert physiotherapist. Physiotherapy included initially passive movements wit massage and then followed by active assisted, active resisted and active movements. The protocol followed was 10 repetitions as one set with 3 seconds holding and relaxing time with 3 sets per day. All movements of the jaw were done like protraction and lateral movements and were measured every time during the followup of the patient till 1 year. All patients were put in semisolid diet for 2 months and then on solid diet.

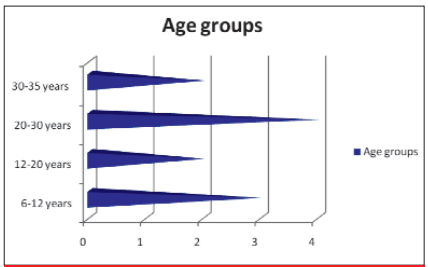

Table I :Age Groups

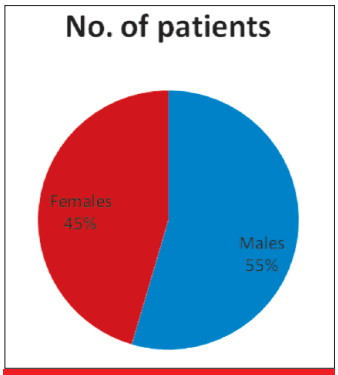

Table II:Sex of the Patients

RESULTS

The preoperative mean mouth opening was 5 mm and postoperative mean mouth opening was 37.5mm(Table III). The followup of the patient was done every month for 1 year. All patients were doing well till 2 years of follow up.

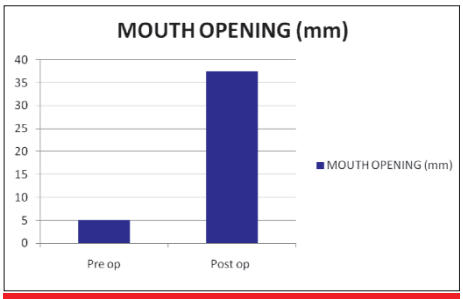

Table III: Mouth Opening

DISCUSSION

Leonard B Kaban et al. in 1990 advocated a protocol for management of the TMJ ankylosis patient which includes: early identification and surgical intervention, resection of ankylotic mass and creation of 1 to 1.5 cm of gap , ipsilateral coronoidectomy and mouth opening of 35 mm, if not achieved contralateral coronoidectomy, lining of the articular surfaces with TMJ fascia/ muscle, reconstruction of the joint and ramus with costochondal graft/ Distraction osteogenesis/ posterior sliding osteotomy/ neogenesis of condyle, rigid fixation and immobilization and aggressive physiotherapy[6-8]. However excellent is the surgery performed by the maxillofacial surgeon, aggressive physiothera-

py with the help of physiotherapist of the newly reconstructed joint is very important and is the most common cause for recurrence of the TMJ ankylosis. According to literature these recurrence can occur as early as 6 months to late as 23 years[9,10]. After the joint is reconstructed rigid fixation is done The joint is immobilized for some period of time and then aggressive physiotherapy has to be started to prevent the hemoarthosis of the joint to stabilize itself in a firm fibrous or bony mass. Physiotherapy must be started on 3rd or 4th day of the surgery. Prolonged immobilization or failure to physiotherapy leads to established fibrous or bony mass leading to decreased mouth opening after a some period of time. A systematic protocol for physiotherapy has to be made for post TMJ ankylosis patient with the help of physiotherapist. Aggressive physiotherapy is most often overlooked by the maxillofacial surgeon and the patient. The patient and the surgeon must know the importance of it as it contributed to 50% success to achieve or maintain the intraoperative mouth opening achieved for a subsequent period of years.

CONCLUSION

A counseling of the patient must be done by an expert physiotherapist for the various movements of the jaw exercises to be performed, improve the psychosocial wellbeing of the patient, acceptance by peers in the society and also must be explained its importance in their day to day life to prevent TMJ ankylosis and every maxillofacial surgical unit operating TMJ ankylosis patients must have an expert physiotherapist.

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