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MAXILLOFACIAL PROSTHODONTIC REHABILITATION: A SURVEY ON HEAD AND NECK SURGEON'S ATTITUDE AND OPINION.

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ABSTRACT Statement of problem: Maxillofacial prosthodontist (MFP) plays an important role in rehabilitation of patients with oral malignancies. There services and involvement in hospital setups seems to be very limited.

PURPOSE: To assess the opinion and attitude of an oncosurgeons towards "Maxillofacial Prosthodontics" as a profession. To assess current awareness of dental implant therapy in rehabilitation of head and neck cancer patients.

MATERIAL AND METHODS: Eighty head and neck oncosurgeons across the country were surveyed, who practiced in different hospitals and private setup. Self-administered, close ended type questionnaire was fabricated to collect the information regarding their professional experience, involvement of MFP in their practice and use of dental implants for rehabilitation after radiotherapy. The data were imported into the SPSS software and analyzed using frequencies test.

RESULTS: Out of 80 participants 50 % were Oral surgeons, 40 % general surgeons and 10% ENT. 13% surgeons say that their decision to reconstruct is determined by availability of prosthetic rehabilitation services. Twenty of them do not have access to a consultant in MFP. (45%) of surgeons involves MFP before surgery (6.25%) after surgery and (5%) follow-up visits.

60 surgeons out of 80 do not use implant therapy after radiotherapy.

CONCLUSIONS: There seems to be lack of involvement of MFP due to availability, efficiency and inadequate hospital setup. Awareness of oncosurgeons about dental implant therapy seems to be lacking.

KEYWORDS : Rehabilitation; Oral cancer; Maxillofacial Prosthodontist; Reconstruction; Oncosurgeons.

INTRODUCTION:

Hospitals that have strong services in head and neck surgery demands prosthetic intervention.[1] Presence of Prosthodontist is equally important at an initial consultation to plan the dental rehabilitation.

Several Studies seen in the field of Maxillofacial Prosthodontics (MFP) exploring patient's opinion and attitude towards their prosthesis[2]; Surgeons preferences to reconstruct or obturate the defect[3];Maxillofacial technician perception etc.[4] But trend of referrals and involvement of maxillofacial prosthodontist in today's cancer hospitals is mysterious.

Study was therefore designed to assess the opinion and attitude of currently practicing head and neck oncosurgeons in India about "Maxillofacial Prosthodontics" as a profession. Material and

METHODS:

A pilot, self-administered questionnaire based survey was carried out on eighty head and neck oncosurgeons in different hospitals and private setup in India. Questionnaire included title, aim and objectives of the study.

Questionnaire contains three parts: in first part, questions 1, 2, 3 were close ended type, includes professional experience (years of experience; performing resection of head and neck tumors; numbers of cases treated per year). In second part questions 4, 5, 6, 7, 8, 9 were close ended type comprise of involvement of MFP in their practice. Lastly third part questions 10, 11 included knowledge of use of dental implants for rehabilitation after radiotherapy.

Ethics: All the information sought from the participants was not sensitive; therefore ethical approval was not required.

Statistics: After collecting the responses, the data were imported into the SPSS software and analyzed using frequencies test.

RESULTS:

Out of eighty participants 58 were male and 22 female. Most of the respondents worked in private hospitals and 15% worked in academic setups. More than 50 % were Oral and maxillofacial professional while 40 % were head and neck general surgeons and remaining 10% were ENT surgeons.

About 44% of surgeons had (4 – 10) years of experience and 25% had up to 3 years of experience and 31 % had more than 10years of professional experience after theirs master's degree (table 1). All of these surgeons carryout resection of head and neck tumors, where 35% of them performs more than 10 cases per year.

Participants were asked about percentage of cases they surgically prefer to reconstruct (4 options of percentage were mentioned). Eighteen participants prefer surgical reconstruction in 100% of their head and neck tumor resection, 20 surgeons prefers in75% of their cases, 23 of them in 50% of cases and 9 surgeons prefers in 25% of cases.

The surgeons were asked to indicate the most common factor that influences their decision to reconstruct surgically (table 2). Responses for this question were more than one. Majority of surgeons (84.5%) decision is influenced by the nature and extent of disease, while (39.13%) surgeons decides on patients age or medical status, 26% says that it depends on patients preference and 13% decision is determined by availability of prosthetic rehabilitation services.

All the surgeons consider that MFP is very important member and is an integral part of team for complete rehabilitation. Twenty of them do not have access to a consultant in MFP due to inadequate dental setup at hospitals (40%), lack of trained MFP (40%) and cost factors (20%). Thirty three percent of surgeons do refer these cases for prosthetic rehabilitation but rest of them prefers to leave patients with primary closure and follow-up.

A key question in the survey asked about the surgeon's preference to involve MFP in cancer therapy (table 3). The highest proportion of surgeons involves MFP before surgery (45%) and during treatment planning (32.5%) and (11%) involves during surgery. Lowest proportion of surgeons involves them after surgery (6.25%) and follow-up visits (5%).

Surgeons were asked about percentage of cases they prefer to rehabilitate with dental implant therapy (4 options of percentage were mentioned). Sixty surgeons out of 80 do not use implant therapy after radiotherapy, while 12 participants prefers to use in 25% of their cases and 8 of them prefers dental implant rehabilitation in 50% of their cases after radiation.

Although majority (67%) of surgeons do consider dental implants for rehabilitation of their patients with maxillary and mandibular defects

but very few number of cases are refereed. So also they say that with the introduction of dental implant therapy in rehabilitation of surgical defects, there has been no change in the treatment plan regime.

DISCUSSION:

Surveying gives us the true insight about the current status of the topic. Questionnaire is a good research tool that one can use to collect information about the opinions and attitude of the participants.

In this questionnaire based study we decided to interview the respondent personally so that complete data can be collected effectively. The proportion of surgeons with (4 – 10) years of experience is 44%and 35% of them perform more than 10 cases per year.

The questionnaire revels that 23 surgeons out of 80 prefer surgical reconstruction in 50% of their cases which is close to 20 of them in 75% of cases. The decision to reconstruct surgically seems to be due to multiple reasons, but 84.5% of them decides by the nature and extent of disease.

A Ali, M.J. Fardy, D.W.Patton surveyed in UK about maxillectomies which were carried out by surgeons and the results says that 38% surgeons do reconstruct surgically, but only in 10% of cases. Also, only 65% of surgeons have access to the services of MFP, this did influence 19% of surgeon's decision about whether to reconstruct surgically or restore by prosthetic means.[4]

HN Surgery, reconstructive plastic surgery, maxillofacial surgery is a primary form of treatment for such patients. Maxillofacial prosthetics is used as an adjunct to maintain the integrity and function of the oral and paraoral structures.They form integral member in providing rehabilitation services. The current study shows that when importance of MFP was questioned, it was accepted as very important part of their team. Surprisingly it was found that only 33% of surgeons refer there cases for prosthetic rehabilitation. One of the main reasons expressed for not having access to a consultant in MFP is due to inadequate dental setup at hospitals and secondly due tolack of trained MFP.

Preservation of remaining structure such as teeth, premaxillary region, nasal bone, vestibular depth etc, aids in many forms in retention of prosthetic devices. Similarly dental implants have helped in achieving highest level of physical and psychological comfort with the maxillofacial prosthetic rehabilitation. Unfortunately there seems to be very little area of preference of dental implants and has its no role in pre surgical planning. There is a need to explore the reason about the today's fate of implantology in rehabilitation of HNC patients.

Involvement of MFP lies into the hands of surgeons but there seems to depriving after surgical intervention and during follow-up visits i.e. 6.25% and 5% respectively. Post-surgical inspection, rehabilitation and maintenance are very important part of patient's treatment. Regular follow-up visits must be encouraged to meet the need of patients and achieve optimal health for them.

Table 1- Clinical experiences of oncosurgeons in the study.

Professional Experience (Years)	Percentage (%)
Up to 3	25
4 - 10	44
Over 10	31

Table 2- Factors influencing decision of surgeons for surgical reconstruction.

Factors	Percentage (%)
1. Nature and extent of tumor	84.5%
2. Patients preference	26%
3. Patients age or medical status	39.13%
4. Availability of prosthodontist	13%

Table 3- Preferences of involvement of MFP in rehabilitation.

Stages	Percentage (%)
Prior to surgery	45%
During treatment planning	32.5%
During surgery	11%
After surgery	6.25%
Follow-up visits	5%

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