Original Article

An Audit of Head Neck Oncology Work at The Ramakrishna Mission Seva Pratishthan

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Abstract :

We present an audit of the Head and Neck surgical case load and throughput at the Ramakrishna Mission Seva Pratishthan Vivekananda Institute of Medical Sciences for a two year period.

Key Words : Audit; Oncology; Head Neck; Joint Clinic

Introduction :

The Joint Head and Neck Clinic was started at our Institute in 2020 in response to guidelines from the National Medical Council[1]. From the start it has been a multi-disciplinary endeavour, with participation from ENT Head Neck Surgery, Maxillofacial Surgery, Oncology, Pathology and Radiology.

Patients with head and neck cancer require complex management which is best achieved in a co-ordinated, multi-disciplinary manner. A retrospective audit of the surgical management of such patients in our institute was undertaken to provide baseline data for analysis, so as to improve the service we are providing.

Aims and Objectives :

* To quantify the annual Head Neck oncology patient load in our Institute.
* To quantify the annual number of diagnostic and therapeutic procedures performed on such patients.
* To identify areas of improvement in the Head and Neck service.

Methodology :

Retrospective data was extracted from the theatre records of our Institute of all patients who underwent surgery for Head and Neck cancer in the period from 1st January 2023 till 31st December 2024. The data was then analysed according to various parameters.

Analysis :

Patient Load, Age and Sex Distribution :

A total of 251 patients underwent a Head Neck procedure in the two years under consideration.

In 2023, the total number of patients was 145 (81 male and 64 female), while in 2024 it was 106 (59 male and 47 female). The overall male -female ratio was the same each year. This is shown in Table 1.

Year	Male	Female	Total
2023	81 (56%)	64 (44%)	145
2024	59 (56%)	47 (44%)	106

Table 1. : Gender distribution of total cases

In both years the age specific incident rate was higher between the fifth and eighth decades; the maximum was seen in the sixth decade of life, as depicted in Fig 1.

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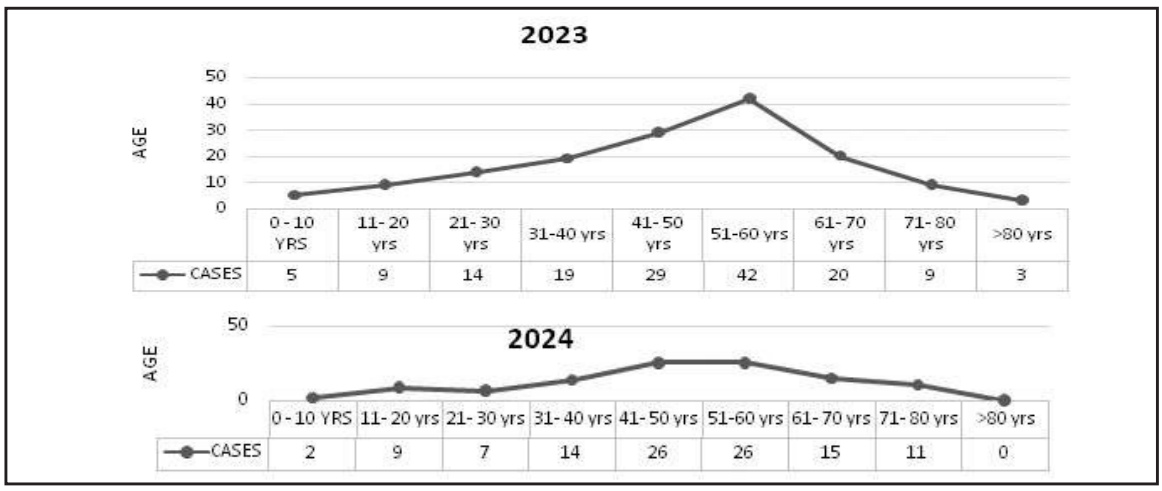

Fig 1. Age specific incidence of patients treated by surgery

Number of Procedures and Anaesthesia :

In 2023, 145 patients underwent 150 procedures: 60 procedures were diagnostic, while 90 procedures were therapeutic. Of these procedures, 29% were performed under local anaesthesia, while 71% were under general anaesthesia.

In 2024, 106 patients underwent 109 procedures: 56 procedures were diagnostic, while 53 procedures were therapeutic. Of these procedures, 35% were performed under local anaesthesia, while 65% were under general anesthesia (Table 2)

Year	Diagnostic LA	Therapeutic LA	Diagnostic GA	Therapeutic GA
2023	42	2	18	88
2024	37	2	16	54

Table 2. Annual distribution of cased performed under specific anesthesia

Type of pathology and procedures :

In 2023 the total 90 therapeutic procedures were performed upon the following sites: oral pathology (24), cervical lymphadenopathy (5), parotid neoplasia (6), laryngeal pathology (18), tonsillar mass (4), bilateral nasal mass (2), unilateral sinonasal pathology, (20), recurrent respiratory papillomatosis (2) and Sjogrens disease (2).

We performed 3 Medial Maxillectomy, 6 Parotidectomy ,11 Microlaryngeal surgeries, 6 DirectLaryngoscopic biopsies, 9 endoscopic sinus surgeries,1 debulking surgery,1 laser surgery (transoral), 34 thyroid surgeries, 1 right hemi-mandibulectomy with free fibular reconstruction, 1 partial Glossectomy with FAMM flap reconstruction, and one Near total maxillectomy.

In 2024, thetotal 56 therapeutic procedures were performed on the following sites: oral cavity pathology (24), parotid pathology (5), adenoid mass (1), cervical lymphadenopathy (2), laryngeal pathology (8), tonsillar mass (3), a Supra orbital bone cyst, a Vagal schwannoma, a bilateral sinonasal mass, unilateral sino nasal mass (17) and a Mccune Albright syndrome.

We performed 3 Medial Maxillectomy, 2 Parotidectomy, 7 Microlaryngeal surgeries, 6 Direct Laryngoscopic biopsies, 3 FESS surgery, 14 Thyroidectomy, 1 right hemi-mandibulectomy,

1 infrastructure maxillectomy.

Non-surgical procedures :

Three patients (diagnosed with Small cell Neuroendocrine carcinoma [SNEC] of the right maxilla , diffuse large B-cell Lymphoma and Nasopharyngeal carcinoma respectively) received a total of 15 cycles of chemotherapy as short admission patients. One patient diagnosed with Intestinal type Adenocarcinoma (ITAC) of the rightsinonasal complex received 4 cycles of post-operative topical chemotherapy on an outpatient basis on 2024.

Discussion :

All studies agree that the higher the surgical case load in Head and Neck cancer in a particular unit, the better the outcome in terms of patient survival and lower complication rates[2]. However there is no consensus on the ideal minimal case load for a cancer centre. One of the largest studies considered centers to be low, medium or high-volume if the annual case treatment load was less than 54, between 54 and 164 and over 165 respectively[3]. By that criteria we are a medium volume centre.

In the two years studied only one patient required a repeat biopsy. Amongst all the patients who underwent therapeutic surgery the biopsy report always matched the final histology report. 5 patients in 2023 and 3 patients in 2024 underwent biopsy followed by definitive surgery. A major problem is that we have no in-house Radiotherapy unit; patients who require postoperative or primary radiotherapy are referred to nearby facilities. One of the major determinants in treatment of our patients is the State Government sponsored health insurance scheme 'Swasthya Shathi'. Initially we were able to perform therapeutic oncosurgery under the scheme. The rules were changed in 2023 so that oncosurgery is only covered if the treating unit is a full-fledged Cancer Centre, with provision for both surgery and radiotherapy. This is the reason why, in 2024, the number of diagnostic procedures was more than the number of therapeutic procedures, and why there was an overall decline in therapeutic procedures compared to 2023.

Similarly, in the absence of a Nuclear Medicine unit we have no facilities for Positron Emission Tomography (PET) scans, Radio-iodine uptake scans and Radio-iodine ablation (RIA); the latter two are often required in the management of Thyroid carcinoma. Patients requiring any of these investigations/procedures again must be referred to other facilities.

Conclusions :

It is commendable that, in the absence of in-house Radiotherapy, the Head and Neck multi-disciplinary team is achieving the case load of a medium volume centre. The noticeable drop in therapeutic procedures in 2024 is indicative of the fact that in absence of Swasthya Shathi facilities, diagnosed patients are unable to complete their therapeutic treatment in our centre. Establishment of a Radiotherapy unit (or at least, an official understanding with the Radiotherapy unit of a cancer centre) would be beneficial to the patients as they would not have to attend multiple centres for their definitive treatment and avail of the existing expertise in our Institute.

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