

SPEECH DEFECTS IN HEAD AND NECK CANCER PATIENTS - A ONE YEAR STUDY

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Abstract

This paper is based on a study of the speech defects in 74 head and neck cancer in-patients seen at the Ear, Nose and Throat Department of the University College Hospital, Ibadan, Nigeria between October 1989 and October 1990. Out of the 74 patients, only 65 had speech problems while 9 were free of speech defects. Hoarseness and rhinolalia clausa were found to be the commonest. Other speech defects found were the so called "hot potato" voice and minimal pitch changes

Introduction

Speech may be defined as a process whereby sequences of meaningful sounds are generated for transmission through the surrounding medium to a listener who detects the sequences and analyse them for their meaning. This process is unique to man, for no other animal is capable of producing speech.

Speech defects are one of the most common symptoms with which various head and neck cancers present. It can be appreciated therefore that a disorder of speech implies that the formulation of meaning is not affected but the transformation of messages through the medium of sound is in some way impaired.

It is considered that a presentation of the speech defects in head and neck cancer patients would help the patients report on time and the doctor who is not usually involved in Otorhinolaryngological practice to make a fairly accurate diagnosis of these conditions.

Material and Methods

Over the last one year, the diagnosis of all head and neck cancer in-patients treated at the Ear, Nose and Throat Department, University College Hospital, Ibadan have been recorded. From these we have abstracted essential information from case notes of all patients with malignancy of head and neck presenting with speech defects. Clinical information about presentation, site, past history (medical, social, occupational) were detailed. Most of the patients were subjected to direct laryngoscopy, pan endoscopy, examination under anaesthesia, biopsy under anaesthesia after the usual clinical examination such as pure tone audiometry, x-rays, C.T. Scan and tympanometry.

Presented below is an analysis of the 74 patients according to the pattern of head and neck cancer and types of speech defect that they have.

Table 1 **Pattern of Head and Neck Cancer and Types of Speech Defect**

| Pattern | No | Speech Defect | Percentage |
|-----------------------------|----|---|------------|
| Nasopharyngeal Cancer | 16 | Rhinolalia clausa Hoarseness, hot potato voice | 21.62 |
| Laryngeal Cancer | 18 | Hoarseness | 24.32 |
| Maxillary Cancer | 18 | Rhinolalia clausa | 24.32 |
| Base of Tongue Cancer | 1 | Hot potato voice Minimal Pitch change | 1.35 |
| Tonsilolinguual Cancer | 5 | Minimal Pitch change | 6.76 |
| Oropharyngeal Cancer | 5 | Hoarseness | 6.76 |
| Nasal Cancer | 4 | Rhinolalia Clausa | 5.41 |
| [Ear] Aural Cancer | 1 | | 1.35 |
| Major Salivary gland cancer | 3 | | 4.05 |
| Infraorbital | 1 | | 1.35 |
| Rhabdomyosarcoma | 2 | | 2.7 |

Table 2

Relative Incidence of Speech Defect

| | No | 0% |
|-----------------------|----|------|
| Rhinolalia Clausa | 35 | 53.8 |
| Hoarseness | 22 | 33.8 |
| Minimal pitch changes | 5 | 7.6 |
| Hot potato voice | 3 | 4.6 |
| Total | 65 | 100 |

Results

The 74 patients with head and neck cancer comprised 47 males and 27 females. Of the 74 patients only 9 were free of speech defects. Out of the 65 head and neck cancer patients that had speech defects, 44 were males and 21 females. The age range of these patients was between 9 and 81 years of age. The speech defects found were rhinolalia clausa, hoarseness, the so called hot potato voice and non-specific minimal pitch changes.

Discussion

Speech defects in head and neck cancer patients are not uncommon. The incidence of speech defects is difficult to estimate. Few head and neck cancer patients see the speech pathologist sufficient enough to draw conclusion about the incidence, pattern and about most appropriate management.

This study however showed that of the different kinds of speech defects found in head and neck cancer patients, rhinolalia clausa and hoarseness were found to be the most common (Table 2).

No patient had a defect of symbolisation that is aphasia nor defect of rhythm (stammering) or articulatory defects.

There was no significant difference in the number of males and females with head and neck cancers compared with those presenting with speech defects. 47: 44 and 27: 21.

The findings of this study was in line with the studies of Laing,¹ HO,² and Le Jeune et al³ who gave hoarseness, rhinolalia or nasal voice and aphonia as symptoms of some head and neck cancers especially carcinomas of the larynx, nasopharynx and nose.

The study also found late presentation to be common among these patients.

Etiological factors have been traced to ingestion of alcohol, tobacco, local irritations and nutritional factors. All the patients with cancer of the larynx had at one time or the other abused alcohol, tobacco or kola while about 60% of those with nasopharyngeal cancer had done same. This information was derived from the social history of the patients.

The pattern of speech defects in head and neck cancer patients in Nigeria appears to be similar to those of other parts of the world as found in the study. However, attitudes towards these problems differ.

The best approach towards tackling these problems is prevention. It is often said that hoarseness of more than two weeks duration should be reported to the clinic for proper examination and diagnosis. Awareness of speech therapy to improve these defects is hereby drawn to Oncologist to make use of.

References

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