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**Invasion of the Strap Muscles, Parathyroid Glands,  
& Mid-line Lymph node in Laryngeal  
& Hypopharyngeal Carcinoma**

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Thesis  
Submitted in partial fulfilment for  
M.D. Degree in Otorhinolaryngology

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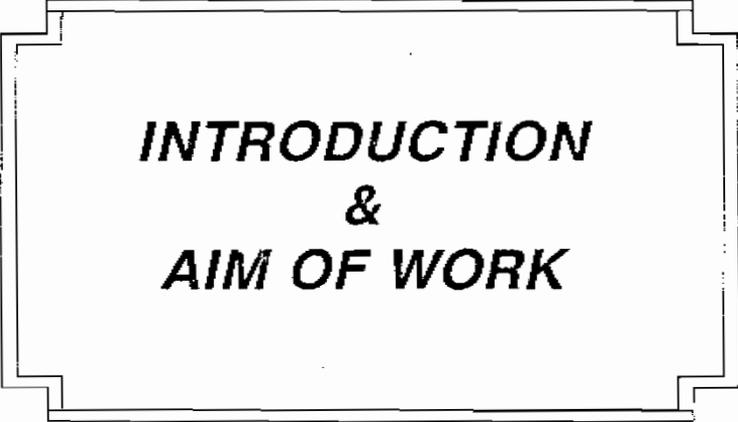
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***INTRODUCTION  
&  
AIM OF WORK***

**INTRODUCTION**

The identification of the growth patterns and pathways of laryngeal and hypopharyngeal carcinoma have stimulated several researches. The crucial question to be answered remains "Can a certain growth pattern be predicted pre-operatively by identifying certain tumour factors?". Obviously, an answer to such a question will facilitate the planning of surgical resection and construction techniques.

Among the studied tumour factors that could influence the growth pattern is the site of the primary tumour. The site of the primary tumour was thoroughly examined by **Kirchner [1977]**<sup>(54)</sup> in glottic and transglottic carcinoma, **Ogura [1955]**<sup>(81)</sup> in supraglottic carcinoma, **Kirchner [1975]**<sup>(55)</sup> in cancer pyriform sinus and **Bahadur and Kacker [1985]**<sup>(7)</sup> in postcricoid and subglottic carcinoma. Also, the histopathologic characteristics of the primary tumour is important factor in the spread of tumour which was studied by **Session [1976]**<sup>(97)</sup>. Other tumour features that could help in predicting future tumour spread are depth of invasion, extra laryn-

geal spread, vascular invasion and tumour borders<sup>(97)</sup>.

Despite all such reports about the pattern of spread of cancer larynx and hypopharynx, still certain pathways are not fully studied. Among these are the spread to the strap muscles, parathyroid glands and mid-line lymph node.

In this work, the spread of laryngeal and hypopharyngeal carcinoma to these three areas will be studied to identify any tumour characters that facilitate tumour spread to these areas.

#### **AIM OF THE WORK:**

The objectives of the present work are:

- (1) to estimate the prevalence of spread of laryngeal and hypopharyngeal carcinoma to the strap muscles, parathyroid gland and mid-line lymph node.
- (2) to identify the risk factors involved in the spread of tumour to these structures, and
- (3) to verify the safety of using the strap muscles in reconstruction.

***REVIEW  
OF  
LITERATURE***