<table>
<thead>
<tr>
<th>Serial No</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Author 1</td>
<td>MGBOR, Samuel O.</td>
</tr>
<tr>
<td>Author 2</td>
<td>DAHILO, E. A.</td>
</tr>
<tr>
<td>Author 3</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Laryngeal Papilomatosis: All 11 Year Review of 54 Cases in Enugu</td>
</tr>
<tr>
<td>Keywords</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>Laryngeal Papilomatosis: All 11 Year Review of 54 Cases in Enugu</td>
</tr>
<tr>
<td>Category</td>
<td>Medicine</td>
</tr>
<tr>
<td>Publisher</td>
<td>Nigerian Journal of Otorhinolaryngology</td>
</tr>
<tr>
<td>Publication Date</td>
<td>September, 2005</td>
</tr>
<tr>
<td>Signature</td>
<td>Chigbu, Emmanuel</td>
</tr>
</tbody>
</table>

Digitally signed by Chigbu, Emmanuel
DN: CN = Chigbu, Emmanuel, C = NG, O = University of Nigeria, OU = Library Department
Reason: I have reviewed this document
Date: 2008.09.11 16:54:05 +02'00'
LARYNGEAL PAPILLOMATOSIS: AN 11 YEAR REVIEW OF 54 CASES IN ENUGU

BY

'DR. NNENNIA C. MGBOR, 'DR. E.A DAHLO, 'DR. SAMUEL MGBOR

'Departments of Otorhinolaryngology and 'Radiation Medicine College Of Medicine UNN Enugu, Nigeria

Correspondence DR. NNENNIA C. MGBOR

mngbora@ yahoo.com, mngbora01@fastmail.fm

ABSTRACT

BACKGROUND: Laryngeal papillomas are by far the commonest benign laryngeal tumours. Could occur in children as juvenile papillomas and in adults adult papillomas. Presentation in children could be devastating with air way obstruction, apnoea, hoarseness and cough but in adult presentation is less insidious with hoarseness.

METHODS

This is a study of all patients who were managed for laryngeal papillomas in otorhinolaryngology department of the University of Nigeria Teaching Hospital Enugu over an 11 year period (1998-1998).

RESULTS

The total study population of 54 patients consisted of 30 (55.6%) females and 24 (44.4%) males. The age range was 3 – 54 years. 62% were children (< 15 years).

Most (64.4%) patients presented with hoarseness alone and 37.0% (all children) had further developed upper airway obstruction necessitating tracheotomy on 56% of them. A total of 101 surgery sessions (Direct Laryngoscopy and excision) were on children. There were 42.7% who had multiple surgeries, 66.7% of this were children. Majority (77.8%) had multiple laryngeal polyps (only 22.2% of them absolved). The remaining 22.2% with single polyp were all adults and histology was stratified squamous epithelial cells.
CONCLUSION
In this study surgical excision was the most used method of treatment. Unwarranted surgical excision, tracheostomy should be avoided to prevent spread to the trachea and bronchi.

KEY WORDS: Recurrent respiratory papillomatosis, papilloma, Eusthu.

INTRODUCTION
Laryngeal Papillomatosis (LP) are the most common benign neoplasms of the respiratory tract in children but have the propensity to occur in adults too.1,2,3 Mackenzie M et al in 1971 differentiated these warts from other laryngeal masses and termed these papillomata. Laryngeal papillomata are caused by one or more of the human papilloma virus (HPV) a group of related DNA viruses, which also cause cutaneous warts and genital condylomata.

This disease is caused by human papilloma types 6 and 11. These types 6 and 11 are also prevalent in genital condylomata.4 Type 11 seems to be the most common type in laryngeal papillomata.6 Types 16 and 18 have also been implicated.

Though lesions of HPVs pathologically seem similar in children and adults, polytrophic lesions usually solitary while in children, they are multiple. Clinical presentation in children is usually recurrent, dramatic and could involve the larynx and bronchi. In those children with early onset of the disease (under 2 years), lesion tends to have a more aggressive clinical course with spread to the intrabronchial tree, lung parenchyma and a new treatment when compared to tumors only present in the vocal cord. In contrast to adult polytrophic LP in children, it rarely becomes malignant unless already invaded.7

Presentation of LP in children is often associated with cough, hoarseness, apnea and upper airway obstruction. Children with laryngeal papillomas often require a tracheostomy and could go through multiple surgical procedures.8 This pattern of disease presentation becomes quiescent after puberty. In adults LP manifests with hoarseness but requires few surgical excisions for cure9, has no ability for spontaneous regression, but could transform into malignancy with or without irradiation10.

Radiologically, laryngeal papillomatosis manifests as either sessile or pedunculated or cauliflower mass which could enlarge and distort the vocal cords, the palate and soft palate. These masses can also extend to the subglottic tracheal air passage diminishing the larynx caliber, and causing contour irregularities in the process. Extension into the lower tracheobronchial tree and the alveoli does occasionally occur by transbronchial seeding; especially after such multiple surgical procedures as laryngoscopy, bronchoscopy and tracheal intubation. The alveolar lesion appears as air space opacities which may also cavitate. This mixture of cavities and lung parenchymal lesions can coexist in one patient. These lesions have a predilection for the right lower lobe which compromises the concept of sealing by aspiration.11

Literature showed that LP have been notoriously unpredictable clinically, resulting in prolonged and frustrating treatment.7 We have therefore here reviewed the presentation and management of 54 patients with LP (children and adults) treated in the Department...
of Otorhinolaryngology of University of Nigeria Teaching Hospital, Enugu over a period of 11 years (1998 - 1998).

PATIENTS AND METHODS
This is a retrospective review of 54 patients managed for laryngeal papillomatosis in otolaryngology department of the University of Nigeria Teaching Hospital (UNTH) Enugu from 1988 – 1998.

Data extracted from patients clinical records were sex and age, age at onset of symptoms, clinical presentation (hoarseness, airway obstruction, cough) patients management (Direct laryngoscope and papilloma excision, tracheotomy, x-Ray of the neck, radiotherapy and chemotherapy) also the number of surgeries patients went through and interval between them. Operative findings (single polyp, multiple laryngeal papillomatosis and extralaryngeal extension) and histological findings.

The data were analyzed using a simple descriptive method and results presented in figures.

RESULTS
Within 11 years period, 62 patients were managed.

In all, 54 patients were eligible for the study. The study population consisted of 30 females (55.6%) and 24 males (44.4%) (fig.1) (m:f ratio 1.3:1). The age range was 3 – 54 years, majority 35 (64.8%) were children (<15 years) and 19 (35.2%) adults, ratio of 1.8:1 children adult fig II and III. Only 2 adults admitted to cigarette smoking and there was no documentation on mothers gynaecological history, patients skin and pelvic anal conditions.

Most patients 34 (63.0%) presented with hoarseness alone, while 20 (37.0%) had further developed upper airway obstruction necessitating tracheotomy (Table 1) on 10 (18.5%) only 2 children presented with cough in addition to other symptoms. One hundred and one (101) surgeries were performed in all, 81 (80.2%) on children. Most were performed on 22 children who had multiple surgeries (fig. II, fig.III). These children had an average of 3.1 surgeries each at a mean interval of 3.2 months. The only adult (33 years old) who had surgeries twice, the first surgery which took place was performed at age 11 years and the second at 33 years. Histology showed a transformation of the tumour to laryngeal carcinoma at 33 years. The remaining 18 (94.7%) adults had single surgery and only 13 (71.7%) had single surgery amongst the children.

None had chemotherapy and radiotherapy.

Forty two (77.8%) of the patients had multiple laryngeal papillomata, only 7 (16.7%) of them were children. The 12 (22.9%) with single polyp were all adults. No patient had extralaryngeal extension.

Radiology and Laryngeal Papillomatosis:
Fig IV
Fig 4 Lateral X Ray view of the Neck. (In soft tissue technique)

Cauliflower- like nodular opacities arising predominantly from the anterior wall of the laryngotraechae and resulting in marked stenosis of the upper air passage.

DISCUSSION
The description of laryngeal papillomatosis dates back to 1871 by Mackenzie, who found papillomas in the larynx of a child and he used the term juvenile laryngeal papillomatosis. Over the years/centuries its been found to affect all age groups and not only limited to the larvae

Nigerian Journal of Otorhinolaryngology Vol 2 No 2 September 2005
Irr.

Fig. 3: Dislributioii of Children and Adults

Female to male ratio of 1.3:1 was found, contrary to the work by Strong, 1.4:1 and Hartley, 2.3:1 all in favour of males. Out of the 27 adults, only 7 were males while it was about equal among the children. This agrees with Hartley's study.

The 20 children whose clinical condition had progressed to airway obstruction had tracheotomy (i.e 18.5% of study group) only 4% was found in a study by Hartley, though literature reveals about 15% does require tracheotomy.

Hoarseness was the most common presentation in adults, this agrees with the clinical course3. Only 2 patients had cough and were all children9.

More than 80% of the surgeries were performed on children who had an average of 3.1 surgeries (Allan found 4.9, 10 though can get to over 100 surgeries in a life time in some patients) each at a mean interval between surgeries of 3.2 months. The interval can get as low as recurring within 2 weeks10. In our study an adult who had a history of LP excision at the age of 11 years had another excision after 22 years. Previous studies show...
Bariatric period could range from 3 to 31 years as was found in the work of Ferguson 111 et al. 1987 where 9 out of 57 cases occurred. Over 62% of the children had multiple surgeries. 10

Well over 70% had multiple laryngeal polyps. Marconnet 10 found 95% in his study and 90% having extralaryngeal involvement. In our study, none was found to have extralaryngeal spread even in the tracheobronchial. Twelve out of the 19 adults had simple polyp on the larynx, though most adults are found to present with multiple lesions. 13, 14, the histology of the few still appeared similar to those with multiple lesions of squamous papilloma. One adult female had a transformation into malignancy.

Facilities were not available in our center for human papilloma virus (HPV) typing, so could not establish its link as causative agent in our study. Other studies linked disease condition to PV types 6 and 11. 12, 16, 18, 20 None of our patients had radiotherapy or chemotherapy interferon. Some studies have shown that these therapy methods increase the period of latency. Mgbor N C et al 2000 reported a malignant change, which conforms with other author's reports. 16, 18, 21. They had repeated significant numbers of transformation even in non irradiated patients.

CONCLUSION

Laryngeal papillomatosis present a serious morbidity especially in children, due to its attendant multiple surgical procedures and narrowing of the airway. Therefore, early diagnosis of cause of hoarseness and stridor in children is important. Hoarseness should not be disregarded as voice abuse; as this may progress to airway obstruction.

REFERENCES


8. McCabe BF and Clark KF; Interferon and Laryngeal Papillomatosis; the Iowa Experience Ann Otol Rhinol laryngol 1983; 92: 2 – 7


