

## An Unusual Presentation of Oropharyngeal Squamous Papilloma in Child: A Case Report

Dr. K.P.Sinha<sup>1</sup>·Dr. Sulekha Swarnkar<sup>2</sup>·Dr. Purnima Bharati<sup>3</sup>

<sup>1</sup>Associate Professor, Department Of Pathology, Rajendra Institute Of Medical Sciences, Ranchi, Jharkhand, India.

<sup>2</sup>Postgraduate Student, Department Of Pathology, Rajendra Institute Of Medical Sciences, Ranchi, Jharkhand, India

<sup>3</sup>Postgraduate Student, Department Of Pathology, Rajendra Institute Of Medical Sciences, Ranchi, Jharkhand, India.

**Abstract:** Malignant oropharyngeal tumours are far more common as compared to benign tumours. Oropharyngeal squamous papilloma typically presents in adults. Squamous cell papillomas are result of infection with Human Papilloma Virus(HPV). Histopathological examination shows multiple papillary projections lined by stratified squamous epithelium and supported by delicate fibrovascular core. Here we present a case of squamous papilloma in posterior pharyngeal wall of Oropharynx in 3½ -year-old female child.

**Keywords:** Oropharyngeal, Papilloma, Excision, Histopathology.

### I. Introduction

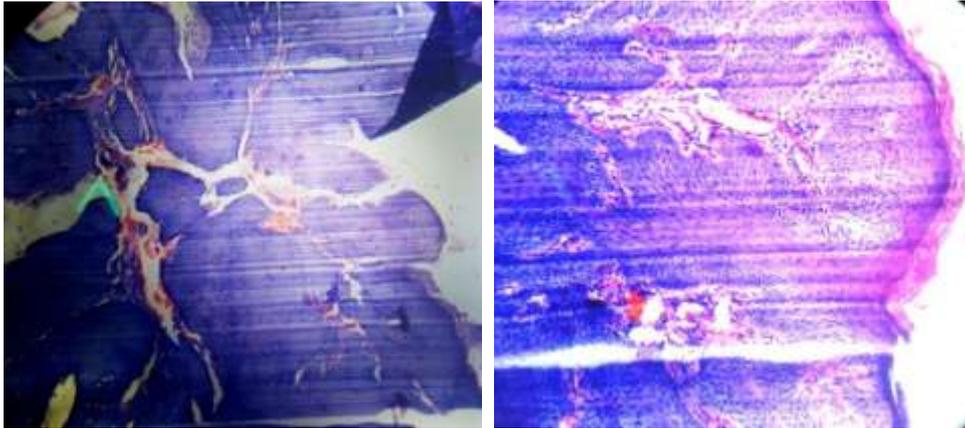
Benign oropharyngeal tumours are far less common compared to malignant tumours. A squamous cell papilloma is generally benign papilloma that arises from the stratified squamous epithelium of the skin, lip, oral cavity, tongue, pharynx, larynx, oesophagus, cervix, vagina or anal canal<sup>1</sup>. When the papillomas are found on the skin they are more commonly referred to as warts or verrucas. Squamous cell papillomas are a result of infection with HPV- 6 and HPV-11<sup>2</sup>. These are generally diagnosed in people between ages of 30 and 50. The soft palate and the uvula are the usual oropharyngeal sites of origin. Oral papillomas are generally painless, and not treated unless they interfere with eating or causing pain. They do not generally mutate to cancerous growths, nor do they normally grow or spread<sup>3</sup>. The incidence of these lesions is increased in patient with Human Immunodeficiency Virus (HIV) infection.

### II. Case Report

A 3½ -year-old female child presented to ENT department of RIMS, Ranchi with complains of throat irritation and pain since last 2 month. The patient developed difficulty in swallowing solid food since last 2 week. There was no history of nasal symptoms, fever or any other complaint. General physical and systemic examination was within normal limit. Throat examination revealed a pink coloured, solitary mass measuring 1x1cm attached to posterior pharyngeal wall. A provisional diagnosis of papilloma was made. X-ray of the soft tissue neck lateral view showed the mass attached to posterior pharyngeal mass further confirming our diagnosis. Excision biopsy was planned under general anaesthesia after basic blood investigation which needs to be performed before any surgery and we received specimen for histopathological examination.



**Fig.1** X-ray of the soft tissue neck lateral view showing the mass in posterior wall of oropharynx.



**Fig.2** Left ( H&E LP) : shows complex pattern of multiple papillary projections surrounding a central fibrovascular core.

right (H&E HP): shows stratified squamous lining of papillary projections along with hyperkeratosis.

### III. Discussion

Squamous papilloma are the most common benign intraoral squamous epithelial neoplasm which usually present as papillary or verrucous exophytic mass and diagnosed most often in adults. The usual site are posterior aspect of the hard palate , soft palates and uvula(34%), dorsum and lateral tongue borders(24%), gingival(12%), lower lips(12%), and buccal mucosa(6%)<sup>4</sup>. The presence of human papilloma virus(HPV) 6 and 11 antigens have been verified by immunoperoxidase method in approximately 50% of oral squamous papillomas which are virally induced. Some may be the result of mechanical irritation, and other (although possibly viral related) are genetically determined, such as occurring as a component of Cowden syndrome<sup>5</sup>. These lesions are white to pink papillary surface epithelial proliferations. Three-fourth of such lesions are less than 1cm in size. No gender preference is observed, and average age of occurrence is approximately 38 years<sup>6</sup>. Currently, there are more than 100 types of HPV. Out of these, 24 are associated to oral lesions with different oncogenic potential.

The soft palate and uvula are the usual oropharyngeal sites of origin. Oropharyngeal papilloma is less proliferative than the squamous papilloma of other sites of the head and neck such as larynx. Though, sometimes the development of precancerous proliferative verrucous leucoplakia and squamous cell carcinoma can occur within squamous papilloma<sup>7</sup>. These are slow growing, usually painless and no treatment is required until they cause pain or interfere with eating. On examination, it is soft, usually pedunculated exophytic nodule with surface projections that impart a “cauliflower” or wart like appearance. They have white or pink colour depending on the surface keratinisation. Less keratinised lesions are pink or red in colour and resemble a raspberry while heavily keratinised lesions are white and look like the head of a cauliflower.

On histopathological examination, the papilloma is classically demonstrate a complex pattern of multiple finger-like projections of stratified squamous epithelium surrounding a central vascular connective tissue core to sustain and feed the tumour. The tumour cells resemble the normal squamous cells, but there is acanthosis, hypergranulosis and hyperkeratosis. The basement membrane is intact. Some cytologic atypia may be present in deeper cell layers, and increased mitotic activity is often present<sup>8</sup>. The differential diagnosis of a papilloma includes verruca vulgaris, condyloma acuminatum, pyogenic granuloma, focal epithelial hyperplasia(Heck disease) and verrucous carcinoma. Condyloma acuminatum, also reported in mouth, cannot be diagnosed with certainty on histological grounds. Whereas as discrete papillary exophytic growth shows acanthosis instead of relatively uniform thick folds of epithelium and mitotic activity is obviously increased, condyloma acuminatum should be suspected.

While most cases require no treatment, therapy options include surgical excision, cryotherapy, application of topical salicylic acid compound or ablation with the use of a CO<sub>2</sub> laser. Recurrence in the oropharynx is unlikely<sup>9</sup>. A vaccine targeted against HPV types 6, 11, 16 and 18 has been introduced recently for the prevention of cervical cancers and genital warts. It is possible that this vaccine may prevent HPV-related lesions of the head and neck as well, such as squamous papilloma, laryngeal papillomatosis, and perhaps some cases of oral and oropharyngeal squamous cell carcinoma<sup>10</sup>.

Oral lesions diagnosis is basically clinical, followed by cytology, and confirmed by biopsy. A high sensitivity method of virus identification such as, polymerase chain reaction (PCR) is done; however, non-detection of HPV DNA does not obviate the possibility of infection, since a small number of copies may be undetected. Treatment should be individualized according to the number, size and location of lesions, patient

wishes, cost and available resources. While most cases require no treatment, surgical excision is the most recommended for few lesions, particularly when a biopsy is desired.

#### **IV. Conclusion**

Squamous papilloma is defined as a benign tumour that grows like small warts in the surface of the skin, oral cavity and genital region. Oropharyngeal squamous papillomas which usually present in adults are very rare in children. Although most cases are asymptomatic, the child in our case presented with symptoms, so the case is being reported for its rarity.

#### **References**

- [1]. National Library for Health (2007). "Squamous cell papilloma". National Library for Health. Retrieved December 19,2007.
- [2]. K.A. Ward, S.S. Napier, P.C. Winter Detection of human papilloma virus DNA – sequences in oral squamous-cell papillomas by the polymerase chain reaction New Zealand Dermatological Society (2007). "Squamous cell papilloma". New Zeala Dermatological Society. Retrieved December 19, 2007.
- [3]. Abbey LM, Page DG, Sawyer D. The clinical and histomorphologic features of a series of 464 oral squamous cell papillomas. *Oral Surg Oral Med Oral Pathol* 1980;49:419–428.
- [4]. Oral cavity and oropharynx J. Rosai (Ed.), Rosai and Ackerman’s Surgical Pathology (9th ed.), Mosby, Elsevier, Missouri (2004), pp. 247–278
- [5]. Abbey LM, Page DG, Sawyer D. The clinical and histomorphologic features of a series of 464 oral squamous cell papillomas. *Oral Surg Oral Med Oral Pathol* 1980;49:419–428.
- [6]. H. Xu, D.W. Lu, S.K. El-Mofly, H.L. Wang Meta chronous squamous cell carcinoma evolving from independent oropharyngeal and pulmonary squamous papillomas; association with HPV 11 and lack of aberrant P53, Rb andP16 protein expression *Hum Pathol*, 35 (2004), pp. 1419–1422
- [7]. Tumours of the oral cavity Diagnostic Histopathology of tumour:Volume 2(4th edition), Christopher D.M Fletcher Page no.256
- [8]. T.S. Lian Benign tumors and tumor like lesions of the oral cavity D.W. Flint, B.H. Haughey, U.J. Lund, J.K. Niparko (Eds.), *Cumming’s Otolaryngology, Head and Neck Surgery* (5th ed.), Mosby, Elsevier, Philadelphia (2010), pp. 1287–1292
- [9]. A.C. Chi Epithelial pathology B.W. Neville, D.D. Damm, C.M. Allen, J.E. Bouquet (Eds.), *Oral and Maxillofacial Pathology* (3rd ed.), Elsevier, Missouri (2009), pp. 362–452.
- [10] A.C. Chi Epithelial pathology  
B.W. Neville, D.D. Damm, C.M. Allen, J.E. Bouquet (Eds.), *Oral and Maxillofacial Pathology* (3rd ed.), Elsevier, Missouri (2009), pp. 362–452