

## Case Report

# Epidermoid carcinoma of the hypopharynx in a child: a rare case report

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### ABSTRACT

Epidermoid carcinoma is a frequent tumor in the upper aerodigestive tracts, and depending on its location and tumor, nodes, metastases (TNM) stage, its therapy and prognosis vary enormously. Its location in the hypopharynx is rare, and in children or young adolescents, this location is extremely rare; The incriminated causes and the pathophysiology of the development of these tumors at this age remain a mystery. We present the case of a young patient of 13 years old, followed for squamous cell carcinoma of the right piriform sinus, with contralateral synchronous tonsil localization, and right lateral cervical lymphadenopathy fixed at 5 cm. In the absence of existing guidelines on the management of this type of location at this age, a multi-disciplinary meeting was necessary to decide on the management of this difficult case at this age.

**Keywords:** Epidermoid carcinoma, Hypopharynx, Child

### INTRODUCTION

Tumors of the hypopharynx, dominated by epidermoid carcinomas, are tumors with a poor prognosis, with a very low 5-year survival rate.<sup>1</sup> Extensions of the mucous membranes and recurrences, even with healthy margins of excision, make these tumors difficult to treat.<sup>2</sup> This location in children is extremely rare. We report a case about it in a young boy.

### CASE REPORT

This is a young patient of 13 years old, with no particular pathological history, seen in ENT consultation for intermittent dysphagia with solids, which started 4 months before, progressively worsening, associated with dysphonia, hemoptotic sputum, weight loss estimated at 9 kg in 2 months, and a bulky right cervical mass.

Examination of the oral cavity found an ulcerative budding lesion of the left tonsil. The nasofibroscope had found a right pharyngeal burgeoning mass, invading the right arytenoid, which was fixed, with hypersalivation. A right and fixed cervical lymphadenopathy of 5 cm was palpable, in the territory V (Figure 1).

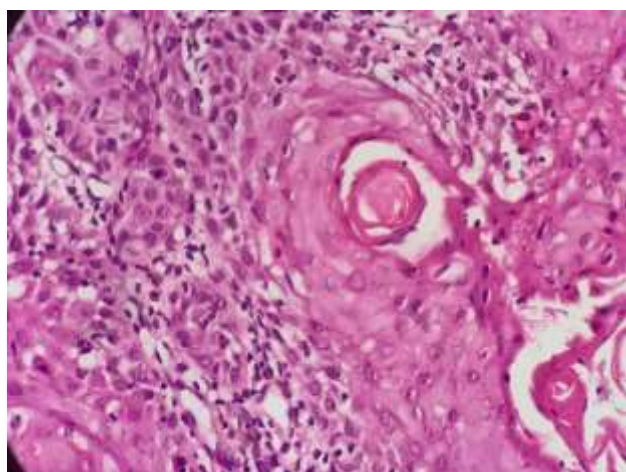
The cervical CT-scan showed an enhanced process of the right hypopharyngeal area of 37 mm, extending to the larynx and reaching the prevertebral space; it also revealed a right cervical mass of 62 mm, heterogeneous hypodense with a large central necrosis.

Suspended laryngoscopy found an ulcerative budding mass occupying the posterior wall of the hypopharynx, invading the right piriform sinus, the esophagus, and infiltrating the right arytenoid, associated to an ulcerated lesion of the left tonsil. Biopsies of the lesions in the two locations were performed with the placement of a

nasogastric tube. The histology of both biopsies revealed an epidermal carcinoma (Figure 2).



**Figure 1: The right lateral cervical mass which corresponds to the cervical lymph node of the patient.**



**Figure 2: Histological section of the invasive epidermal carcinoma, hemateine eosin stain, (magnification ×40).**

A chest CT scan and a bone scan did not detect metastases. The patient's case was discussed at a multidisciplinary concertation meeting. A tracheostomy, a jejunostomy and immediate radio chemotherapy treatment were decided, as well as psychological support by child psychiatrists. Despite the fast beginning of the medical care, the child died 7 months later.

## DISCUSSION

Epidermoid carcinoma of the hypopharynx ECH is a rare tumor in adults and even rarer in children. It has the poorest prognosis among EC of the head and neck.<sup>1</sup> In adults, in England, its incidence would be approximately 0.63/100,000 people, and in Europe and the USA, it would represent approximately 3 to 14% of all epidermal carcinomas of the head and neck.<sup>1,3,4</sup>

His diagnosis is often late, due to a silent symptomatology, and has a large lymphophilia towards the cervical lymph nodes, explained by a rich submucosal lymphatic network.<sup>2,4,5</sup> In children, these cases are rarer than in adults. This rarity is illustrated by the fact that one of the largest series reported by the same institution on this location in children is a series of six children, that of Siddiqi et al. suffering from EC of the larynx and/or hypopharynx.<sup>6</sup>

Regarding the factors incriminated in the genesis of this tumor, the alcohol-smoking factor has never been reported as the only causative factor in children.<sup>6</sup> Juvenile recurrent papillomatosis, and the Human papilloma virus has been studied and evoked.<sup>7,8</sup> The exact causes of this cancer in an early stage of life remain unknown with certainty and some authors question whether it should not be classified as a separate entity.<sup>5,6</sup>

Most of the children in the Siddiqi et al. study required an emergency tracheostomy; our patient underwent a quick tracheostomy.<sup>6</sup> There is no consensus regarding the management of this particular clinical entity at such a young age. Treatment is often extrapolated from adults. In the same study of Siddiqi et al, the authors favored radical surgery followed by radio chemotherapy. Chemotherapy, in the case of palliative care, has shown an increase in overall survival, but only slightly.<sup>6,9</sup>

For our young patient, the decision of the multidisciplinary meeting was a radio-chemotherapy as a palliative option.

ECH has a poor prognosis with an overall five-year survival rate of 30%.<sup>6</sup> Considering the extent of the tumor, the advanced stage at diagnosis, the aggressiveness of this localization and other factors, the patient's evolution was marked by his death 7 months later.

## CONCLUSION

The management of this tumor is difficult on several levels, and the rarity of the cases published in this population does not allow to have clear guidelines for treatment to date, which would however be of great help to caregivers confronted with these rare cases.

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