



A rare cause of dysphagia in children: Squamous cell carcinoma of the esophagus: A case report and review of literature

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Abstract

Globally, an estimated 572 000 cases occurred in 2018 of malignant tumors of the esophagus but in children and adolescents, this cancer is a rare disease. Through this case report, i tried to analyze the clinical, paraclinical, therapeutic and prognostic profile of squamous cell carcinoma of the esophagus in children. This 10 years old female school child is presented with a complaint of worsening of difficulty of swallowing of 01 week duration. She had Symptoms complex of TB for the last 3 months. FNAC from right axillary, bilateral inguinal LNs, discrete with pus oozing sinus tract about 2x2 cm Microscopy shows caseous necrotic material= suggestive of TB. SAM (NE) + Severe Pneumonia + R/O Diss TB (Lung, LN) + Tungiasis was considered and anti TB was started but the patient was deteriorating. After one month course in the hospital the patient condition was deteriorating, the dysphagia become worsened. CHEST CT SCAN of the child was taken and the Finding: there is multifocal coalescing tree in bud opacity in posterior segment of the right upper lobe and superior segment of the lower lobe on the same side. There is consolidation with bronchiectasis changes on the left lower lobe. Multiple enlarged Para tracheal, sub carinal and Para esophageal nodes noted. There is circumferential wall thickening of the mid and part of proximal esophagus with no fat plane from the enlarged adjacent nodes. Calcified right axillary nodes visualized. the Impression was Bilateral pulmonary opacities with mediastinal LAPs (likely 2ry to TB) + circumferential wall thickening of mid and part of proximal esophagus Ddx: Esophageal malignant mass with mediastinal nodal deposits and aspiration pneumonia- so needs clinical correlation and endoscopic study. Esophageal biopsy was taken and section shows nests and single cells of malignant squamous cells having high N/C ratio hyper chromatic nucleo and dense eosinophilic cytoplasm along with keratin pearls along with monocular infiltration and atypical mitosis invading in to desmoplastic stroma. Conclusion: Squamous cell carcinoma

The child was transferred to oncology ward for chemotherapy and radiotherapy after one week of ward stay the patient passed away.

Malignant esophageal tumors in children and adolescents are extremely rare conditions. The ingestion of caustic products and smoking are currently the most well-known risk factors for this disease, factors not found in our patient. Dysphagia is the main clinical sign of squamous cell carcinoma of the esophagus. Thus, in the event of dysphagia in children or adolescents, a mediastinal process should be considered, and a paraclinical assessment should be carried out. Since squamous cell carcinoma of the esophagus is a rare malignant tumor in children, the interest of this case report is to underline the importance of evoking a malignant esophageal process in children who present a notion of dysphagia to solids then to liquids, associated with an alteration of the general condition and anemia.

Introduction

Malignant tumors of the esophagus are the 6th cause of cancer death in the world [1]. Globally, an estimated 572 000 cases occurred in 2018 [2]. It is essentially an adult disease, with a peak prevalence between 35 and 64years. Therefore, esophageal cancer in children and adolescents is a rare disease [1]. Through this clinical case, we tried to analyze the clinical, preclinical, therapeutic and prognostic profile of squamous cell carcinoma of the esophagus in children.

Case presentation

This 10 years old female school child is presented with a complaint of worsening of difficulty of swallowing of 01 week duration. She had symptoms complex of tuberculosis (TB) for the last 3 months. Fine Needle Aspiration Cytology (FNAC) from right axillary, bilateral inguinal LNs, discrete with pus oozing sinus tract about 2x2 cm Microscopy shows caseous necrotic material= suggestive of TB. SAM (NE) + Severe Pneumonia + R/O Diss TB (Lung, LN) + Tungiasis was considered and anti TB

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was started but the patient was deteriorating. After one month course in the hospital the patient condition was deteriorating, the dysphagia become worsened. Chest CT scan of the child was taken and the finding: there were multifocal coalescing tree in bud opacity in posterior segment of the right upper lobe and superior segment of the lower lobe on the same side. There was consolidation with bronchiectasis changes on the left lower lobe. multiple enlarged para tracheal, sub carinal and para esophageal nodes noted. There was circumferential wall thickening of the mid and part of proximal esophagus with no fat plane from the enlarged adjacent nodes. Calcified right axillary nodes visualized, the impression was bilateral pulmonary opacities with mediastinal LAPs (likely 2ry to TB) + circumferential wall thickening of mid and part of proximal esophagus DDX: Esophageal malignant mass with mediastinal nodal deposits and aspiration pneumonia- so needs clinical correlation and endoscopic study. Esophageal biopsy was taken and section shows nests and single cells of malignant squamous cells having high N/C ratio hyper chromatic nucleo and dense eosinophilic cytoplasm along with keratin pearls along with monocular infiltration and atypical mitosis invading in to desmoplastic stroma. Conclusion: Squamous cell carcinoma

The child was transferred to oncology ward for chemotherapy and radiotherapy after one week of ward stay the patient passed away.

Discussion

Malignant tumors of the esophagus in children and adolescents are extremely rare conditions. A total of 23 cases of esophageal squamous cell carcinoma have been reported in the literature [3-9]. The ingestion of caustic products and smoking are currently the known risk factors, factors not identified in this case report. Esophageal cancer in adults is a tumor with a poor prognosis, with a median survival of 13 to 19months [11]. In this case report, clinical improvement is observed 2years after the beginning of the treatment. Dysphagia is the main clinical sign of squamous cell carcinoma of the esophagus. It may be isolated at first, and limited to solids dysphagia. Later, fluid dysphagia, weight loss and anemia secondary to hematemesis set in. These hematemesis can be very abundant, and engage the immediately vital prognosis, in the absence of urgent treatment.

Thus, in the event of dysphagia in children or adolescents, a mediastinal process should be considered, and a para clinical assessment should be carried out. It must include in particular an eso-gastro-duodenal fibroscopy, which makes it possible to visualize a possible esophageal lesion, and to perform biopsies. TEPSCAN can be used to search for the hypermetabolic nature of a suspicious lesion, and for possible metastatic locations. Due

to the rarity of esophageal cancer in children, treatment is based on the principles used in adults. Complete surgical resection with wide margins and extensive lymph node dissection are indicated, in combination with radio chemotherapy. However, no common treatment strategy has been established in children.

Conclusion

Since squamous cell carcinoma of the esophagus is a rare malignant tumor in children, the interest of this case report is to underline the importance of evoking a malignant esophageal process in children who present a notion of dysphagia to solids then to liquids, associated with altered general condition and anemia.

Conflicts of interest

The authors declare that they have no conflicts of interest to disclose.

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