**BACKGROUND**

Multiple primary malignancies in a single patient was first reported by Billroth in 1879. The frequency of multiple primary tumors has been reported between 3.7% and 12% of all cancers. Extra-hepatic primary malignancies (EHPM) in the setting of hepatocellular carcinoma (HCC) are frequent, especially if cirrhosis is also present, most of them presenting synchronously (76.7%). It is classically stated that EHPM do not significantly influence the survival of patients with HCC but pharyngeal squamous cell carcinomas are rare events in the published literature. We report on a patient with synchronous liver and pharyngeal carcinoma and discuss the rationale behind the treatment sequence.

**CASE PRESENTATION**

A 55 year old male, with alcohol related liver cirrhosis Child Pugh A and current smoker with chronic obstructive pulmonary disease was referred to our center after a contrast-enhanced computerized tomography, performed for respiratory tract infection at the primary care facility, showed a well-circumscribed mass with a large exophytic component measuring 15cmx9cmx11.5cm favoring the diagnosis of a HCC.

Concurrently, the patient complained of odynophagia and a mass in the soft palate was observed. Biopsy was positive for a squamous cell carcinoma. Pharyngeal carcinoma was staged as a T2N0M0 and the HCC as a T3bN0M0.

After multidisciplinary evaluation, the patient was submitted to partial pharyngectomy and bilateral neck dissection. Left portal vein embolization was deemed necessary for safer liver resection and was performed 1 month after surgery. A left lateral heptectomy was then performed.

Pathology report confirmed the diagnosis of a squamous cell carcinoma of the soft palate with lymph node involvement staged as a T2N2M0 and a HCC measuring 17 cm.

Six months later the patient underwent orthopedic surgery for a fractured vertebrae. He later developed a surgical site infection with subsequent septicemia and died. No evidence of oncological disease was present when this occurred.

**CONCLUSIONS**

Synchronous malignancies raise the question of treatment sequence, i.e., which primary should be treated first. HCC has the highest rate of synchronous tumors and the most common site of EHPM is colorectal. Although HCC and head and neck cancer share risk factors, the presence of both cancers is rare and conclusions regarding prognosis are difficult to extrapolate. Even if the prognosis depends on HCC, in the current case an inversion in treatment sequence was favored based on the fact that the pharyngeal cancer was symptomatic, the favorable profile of HCC with a large exophytic component and because HCC has other therapeutic options without compromise of progression free survival justified this choice. Personalized oncology treatment in this scenario requires centers capable of managing multiple malignancies as well as close follow up to ensure completion of a curative strategy.