# Diagnosis of Intrahepatic Cholangiocarcinoma, Poorly Differentiated Signet Ring Cell Subtype: A Case Report In the Philippines

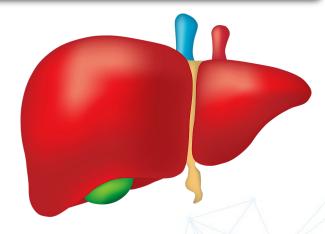
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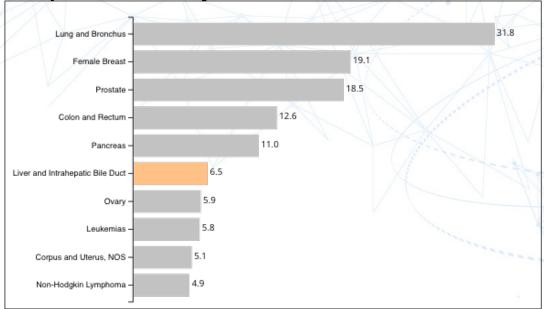
To present a rare case of Intrahepatic Cholangiocarcinoma, Poorly Differentiated Signet Ring Cell Subtype

To demonstrate key features of this rare subtype of Intrahepatic cholangiocarcinoma as tumor heterogeneity continue to evolve

### **BACKGROUND**



Top 10 Cancers by Rates of Cancer Deaths, 2020



- □ Liver and Intrahepatic Bile Duct Cancers is ranked as the 6<sup>th</sup> leading cause of cancer deaths (United States CDC, 2020)
- □ Intrahepatic Cholangiocarcinoma is the 2<sup>nd</sup> most common primary hepatic malignancy next to HCC, with 10-15% of all liver cancers and highest in the South East Asian region
- □ Rare subtypes of iCCA with their differentiation have been determined and correlate with added aggressiveness and prognostication
- Only twelve (12) cases of a signet ring cell subtype of cholangiocarcinoma have been reported and eight (8) of them from South East Asia
- ☐ There are no case reports of this rare subtype in the Philippines to date.

## **METHODS**

### **CASE DESCRIPTION**

- □ A 58 year-old Male sought consult due to a 1 month history of bloatedness and minimal weight loss
- □ CT scan showed lobulated and septated hypodense mass with heterogenous and peripheral enhancement, located in segments II and III of the liver measuring 7.1 x 6.9 x 5.9 cm
- ☐ The patient had no other lesions in the Gastrointestinal tract and the Genitourinary tract

#### **GROSS EXAMINATION**

- ☐ Specimen labeled: "Left Liver"
- ☐ Weight: **504.5 grams**
- ☐ Size: **15.0** x **11.0** x **7.0** cm
- ☐ Cut Sections: shows an ill-defined, cream-tan to pink, soft to firm mass measuring

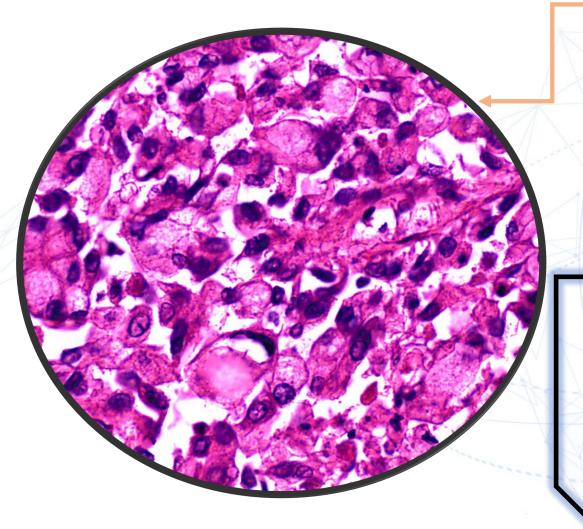
7.5 x 7.1 x 5.6 cm

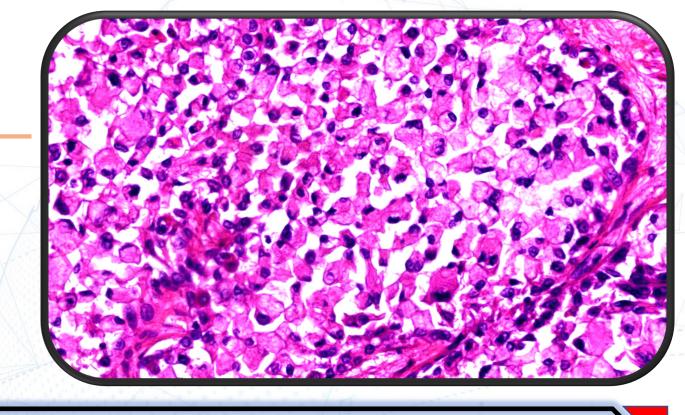
☐ Margins: 0.3 cm from the nearest inked capsule





## **RESULTS**

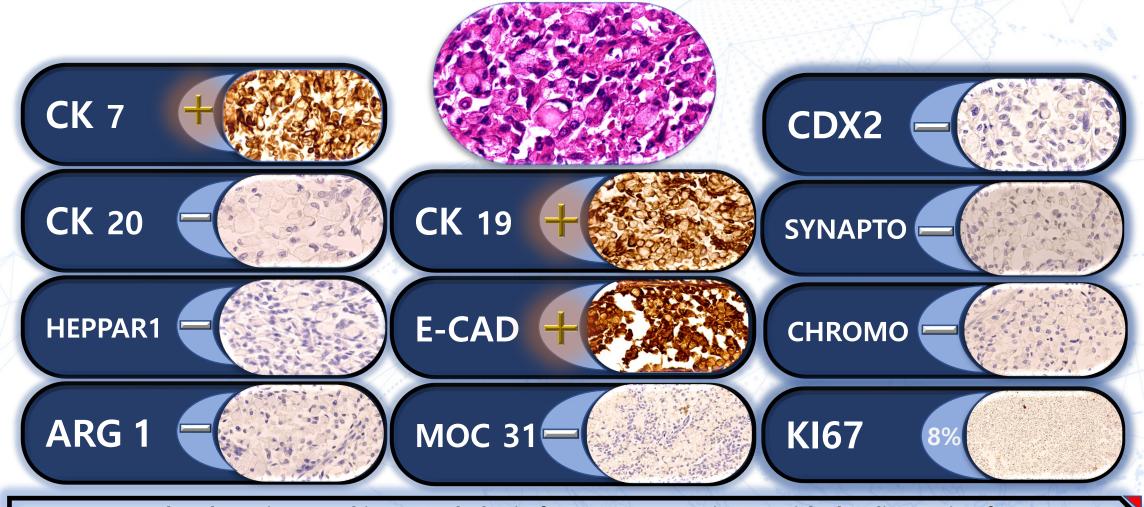




### **MICROSCOPIC EVALUATION:**

Abundant cellular elements with varisized, highly pleomorphic and intracellular mucin-forming vacuoles which displace the dense nuclei to the periphery of the cells forming signet-ring cell morphology

### **IMMUNOHISTOCHEMICAL STAINS**



The above immunohistomorphologic features are consistent with the diagnosis of

INTRAHEPATIC CHOLANGIOCARCINOMA, SIGNET RING CELL SUBTYPE

## CONCLUSIONS

- ☐ The relevance of the case and its accurate diagnosis have significant implications in post-operative treatment and prognostication due to the aggressive nature of the subtype
- □ **Differentiation is key** in the diagnosis in terms of determining whether it is from a primary liver tumor or a metastatic tumor from the gastrointestinal tract and genitourinary as morphologies may be similar
- ☐ Histomorphology in correlation with immunochemistry, clinical data and communication with the attending physician are necessary to establish the diagnosis
- ☐ Further studies including molecular analysis are ideal in the management