

▪ **Answer:**

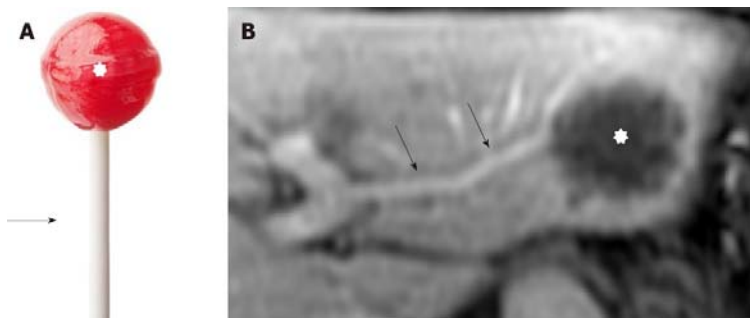
d) Epithelioid hemangioendothelioma

▪ **Findings:**

- Contrast enhanced CT scan shows Multiple hypo enhancing hypo dense masses in both liver lobes, confluent sub capsular lesions in the right lobe.
- Target sign and lollipop sign in some lesions.
- Flattening/retraction of the liver capsule .
- No evidence of dilated bile ducts.
- No calcification.

▪ **Discussion:**

- Hepatic epithelioid hemangioendothelioma (HEHE) is a rare, low to intermediate grade malignant hepatic vascular tumor.
- CT scan: Typically seen as multiple hypoattenuating lesions in both hepatic lobes that coalesce to form larger confluent hypoattenuating regions in a peripheral or subcapsular distribution, with a halo or target pattern of enhancement in larger lesions. Subcapsular lesions often present with capsular retraction.
- Hepatic or portal veins or their branches may taper and terminate at or just within the edge of these lesions (lollipop sign). Calcifications are uncommon, but do occur on occasion.
- MRI: T1: hypointense lesions relative to normal liver parenchyma on unenhanced T1-weighted images, T2: heterogeneously increased signal intensity, with white target sign in which the bright central core is surrounded by peripheral slightly hyperintense halo , C+ (Gd): some lesions demonstrate either a peripheral halo or a target-type enhancement pattern after administration of a gadolinium-based contrast agent, with an occasional thin peripheral hypointense rim.



Lollipop sign on CT scan

Virarkar M et al. Hepatic Hemangioendothelioma: An update. World J Gastrointest Oncol 2020; 12(3): 248-266



Target sign with fibrous center (yellow arrows) and Lollipop sign(blue arrows) and capsular retraction(red arrows) on Hepatobiliary phase of Gd-EOB-DTPA-enhanced MRI.

Xu, P., Li, J. Hepatic Epithelioid Hemangioendothelioma Diagnosed by Gd-EOB-DTPA-Enhanced MR. *J Gastrointest Surg* 25, 1916 (2021).

▪ **References:**

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- Zhou, L., Cui, MY., Xiong, J. et al. Spectrum of appearances on CT and MRI of hepatic epithelioid hemangioendothelioma. *BMC Gastroenterol* 2015, 15, 69.
- Gan LU, Chang R, Jin H, Yang LI. Typical CT and MRI signs of hepatic epithelioid hemangioendothelioma. *Oncol Lett.* 2016;11(3):1699-1706.

"Case courtesy of Faeze Salahshour, MD, Associate Professor of Radiology, Imam Khomeini Hospital, Tehran University of Medical Sciences."