

**Abstract:**

Hepatic arterial infusion (HAI) of chemotherapy is a locoregional treatment strategy for hepatic malignancy involving placement of a surgically implanted pump or percutaneous port-catheter device into a branch of the hepatic artery. HAI has been used for metastatic colorectal cancer for decades but has recently attracted new attention due to its potential impact on survival, when combined with systemic therapy, in patients presenting with unresectable hepatic disease. Although various HAI device related complications have been described, little attention has been given to their appearance on imaging. Radiologists are uniquely positioned to identify these complications given that patients receiving HAI therapy typically undergo frequent imaging and may have complications that are delayed or clinically unsuspected. This article therefore reviews the multimodality imaging considerations of surgically implanted HAI devices. The role of imaging in routine perioperative assessment, including the normal postoperative appearance of the device, is described. The imaging findings of potential complications, including pump pocket complications, catheter or arterial complications, and toxic or ischemic complications, are presented, with a focus on CT. Familiarity with the device and its complications will aid radiologists in playing an important role in the management of patients undergoing HAI therapy.

**Reference:**

Strnad BS, Ludwig DR, Gilcrease-Garcia B, Fraum TJ, Shetty AS, Doyle MBM, Mellnick VM. Contemporary Imaging of the Surgically Placed Hepatic Arterial Infusion Chemotherapy Pump. *AJR Am J Roentgenol*. 2020 Oct 7. doi: 10.2214/AJR.20.24437. Epub ahead of print. PMID: 33025806.