

Introduction

After undergoing potential surgical resection and/or chemotherapy, patients are oftentimes referred to an interventional radiologist (IR) for palliation. IR may perform imaging-guided procedures to allow patients to achieve a more comfortable end-of-life transition. The purpose of this review is to characterize the role of embolization in palliative care.

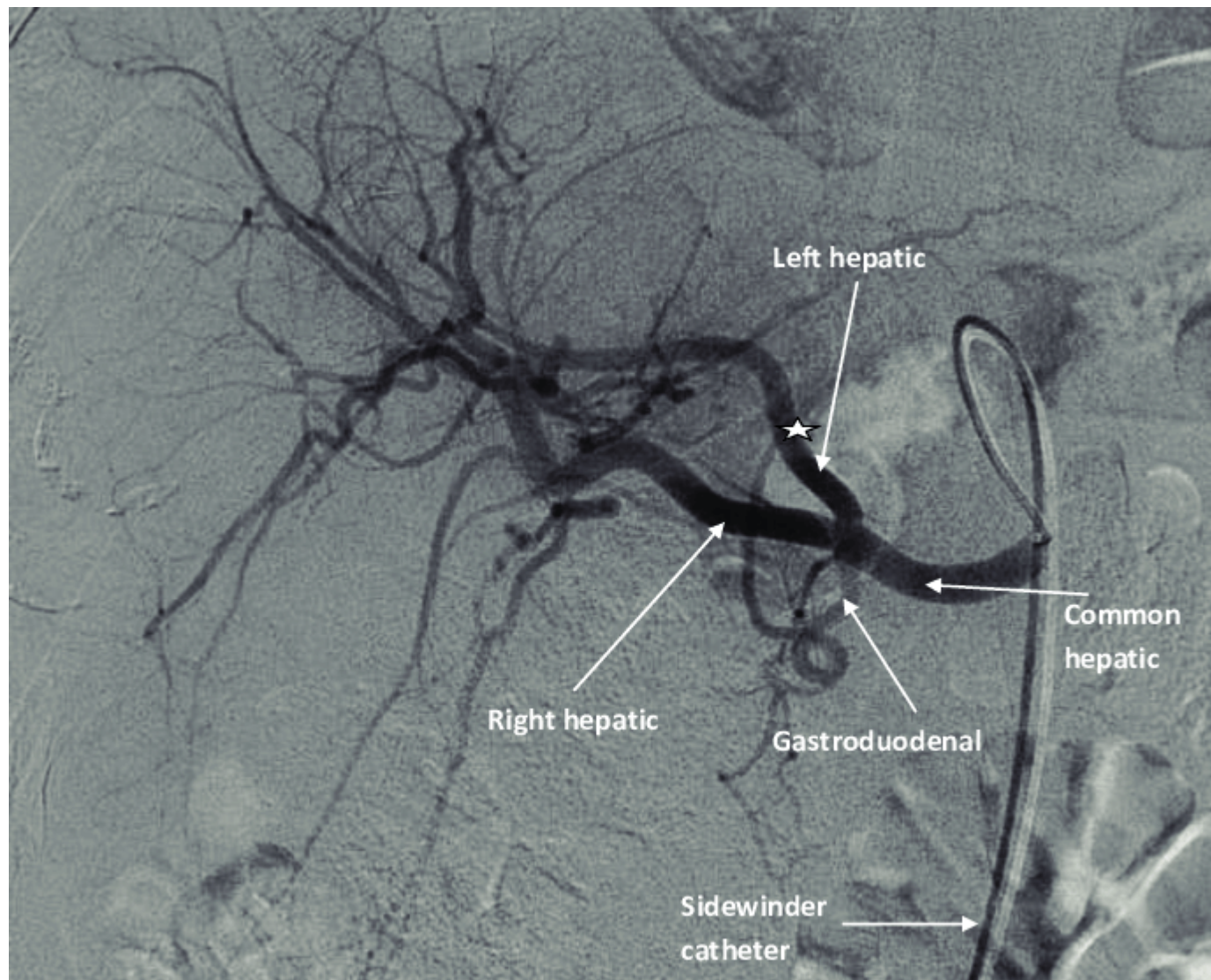


Figure 1: Hepatic artery embolization (Image from Kyriacou et al., 2015). Angiogram captured during embolization of the left hepatic artery, showing the left, right hepatic and gastroduodenal arteries. *signifies the site of injection of the microsphere embolic agent.

Materials and Methods

A review of the literature was performed using PubMed. Inclusion criteria was limited to articles published from January 2002 to present, and focused on palliative care, metastatic carcinoid syndrome, and symptomatic improvement.

Results

- Embolization is a potential treatment for a variety of disease processes (predominantly in the liver) such as metastatic carcinoid syndrome.
- Recent studies have shown that certain types of liver-directed therapy, i.e. chemoembolization and bland embolization are comparably effective in the management of carcinoid syndrome, as well as the metastatic deposits themselves. Schell et al. (2002) reviewed a sample of 101 hepatic artery embolizations from 24 patients. Post-operative hepatic tumor size was shown to reduce in 79 percent of those treated and remained stable in 17 percent. Approximately 64 percent of the patients were regarded as asymptomatic after treatment and 46 percent were able to end octreotide treatment completely. Five-year survival was 72 percent for all patients with carcinoid and unresectable hepatic metastases, and 54 percent for the subset of patients with malignant serotonin syndrome.
- In addition, embolization is proven to be a successful mode of treatment for functional liver metastasis from islet cell tumors. Hepatic artery embolization for liver metastasis from islet cell tumors has a 16-month average duration of symptomatic relief, as demonstrated by Gupta et al. (2003). This study also found that chemoembolization was more effective than bland embolization in the treatment of islet cell carcinoma metastases.
- Various endovascular interventions are now used for pain management in cancer patients. Through embolization, ablation, and combination therapies, patients may gain significant improvement in the quality of remaining life.

Conclusions

Embolization and other endovascular techniques are highly effective interventions for treatment and management in the realm of palliative care, specifically for metastatic carcinoid syndrome, islet cell tumors, and pain management.

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