

## Background

- Intrahepatic cholangiocarcinoma (IHCC) often presents as large tumors with limited role for local therapy.
- Higher radiation therapy (RT) doses may improve outcomes in this patient population.
- We present our experience with RT treatment in patients with large IHCC.

## Methods

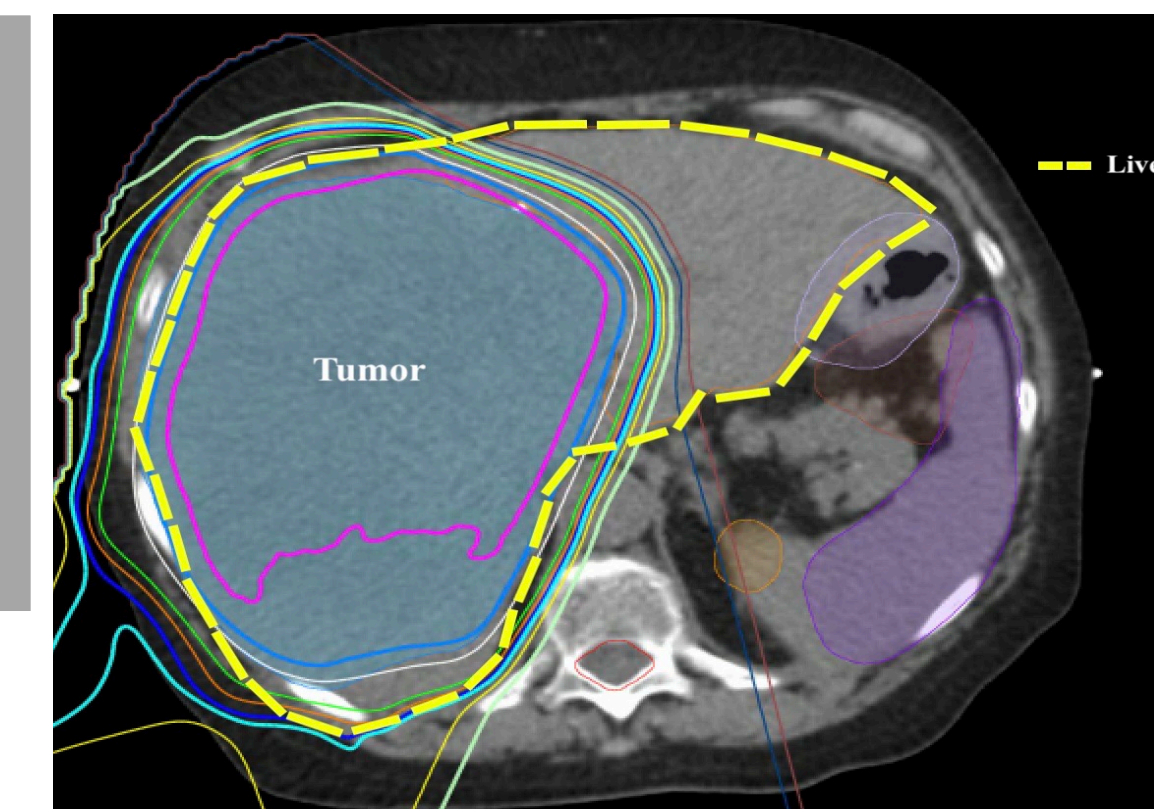
- We performed a retrospective review of patients with IHCC treated with RT at The University of Texas MD Anderson Cancer Center.
- Patients with a gross tumor volume (GTV) of 800cc or more were eligible for inclusion.
- The main outcomes were overall survival (OS), local progression- (LPFS), and distant metastasis- free survival (DMFS) from the beginning of RT.
- Treatment toxicity was assessed by regularly documented CTCAE criteria.

Table 1: Patient and Tumor Characteristics		N=12
Age		60.0 (55.0-66.8)
Sex		
	Female	4 (33.3)
	Male	8 (66.7)
T Stage		
	2	7 (58.3)
	3	4 (33.3)
	4	1 (8.3)
N Stage		
	0	5 (41.7)
	1	7 (58.3)
M Stage		
	0	8 (66.7)
	1	4 (33.3)

Table 2: Treatment Characteristics		N=12
Chemotherapy pre-RT		
	Yes	11 (91.7)
	No	1 (8.3)
RT Technique		
	IMRT	8 (66.7)
	Proton	4 (33.3)
RT Dose		67.5 (60-73.1)
RT fractions		15 (15-15)
Concurrent ChemoRT		
	Yes	9 (75.0)
	No	3 (25.0)
Chemotherapy post-RT		
	Yes	7 (58.3)
	No	5 (41.7)

Figure 5. Axial view of patient liver with tumor of a GTV of 2010.6cc.

Isodoses (cGy)



## Results

- GTV/Liver Volume : 43.9% (31.1-61.8).
- The median GTV was 1277.7cc (IQR 900.0-1929.4).
- Only 2 patients (16.7%) died from tumor-related liver failure.
- The main adverse events noted were grade 1 fatigue (9, 75.0%), nausea (6, 50.0%) and abdominal pain (6, 50.0%).

## Conclusions

- Patients with large IHCC showed excellent clinical outcomes in response to high dose RT, within minimal toxicity.
- Future prospective studies are needed to better define the role of RT and possibly systemic treatments in this patient population.

