

# Outcomes of Transarterial chemoembolization in patients with unresectable hepatocellular carcinoma: A tertiary center experience.



Azzan Mujahid , Muhammad Ali , Misbah Tahir Liaquat National hospital karachi Pakistan

## Introduction:

Hepatocellular carcinoma (HCC) is the fifth commonest cancer in the world and is the third commonest cause of cancer related mortality worldwide [1,2,3]. As majority of patients present late so TACE becomes mainstay of HCC treatment in Pakistan. In Pakistan viral related cirrhosis contributes to 87% of HCC, HCV (68%) followed by HBV (22%) [3]. Even in Japan only 25 -30% of HCC cases are candidate for surgery.

Patient survival, improvement in quality of life and symptoms are the most significant factors in assessment of efficacy of TACE. However multiple compounding and overlapping factors make it difficult to assess the efficacy by these variables. We assessed the efficacy of TACE by measuring it's effect on survival of patients with unresectable hepatocellular carcinoma (HCC).

## Methods:

It was a retrospective descriptive study. Seventy two patients were enrolled from July 2010 to Dec 2017. Mean and Median survivals were calculated.

## Results:

Median survival of these 72 patients was 450 days (15 months) with 95% confidence interval (330 days lower bound and 540 days upper bound). The mean survival time was 570 days (19 months), with 95% confidence interval (450 days lower bound and 690 days upper bound). Child-Pugh classification, average size of tumor and embolization pattern were significant factors affecting the median survival time.

Item	Subgroups	N	OS (days/months)			OS (days/months)		
			Mean	95% CI	p	Median	95% CI	P
Average size	<5 cm	20	840/28	21-36	0.001	780/26	17-35	0.001
	5-7 cm	17	600/20	17-23		600/20	15-25	
	>7 cm	35	240/8	2-15		240/8	12-18	
Childs-Pugh	A	37	720/24	18-30	0.001	570/19	13-25	0.001
	B	28	420/14	11-18		360/12	6-18	
	C	7	60/2	1-2		60/2		
Embolization	Complete	40	720/24	18-31	0.002	570/19	11-27	0.002
	Partial	32	390/13	10-15		360/12	8-16	

Table 1: Significant factors effecting median survival time

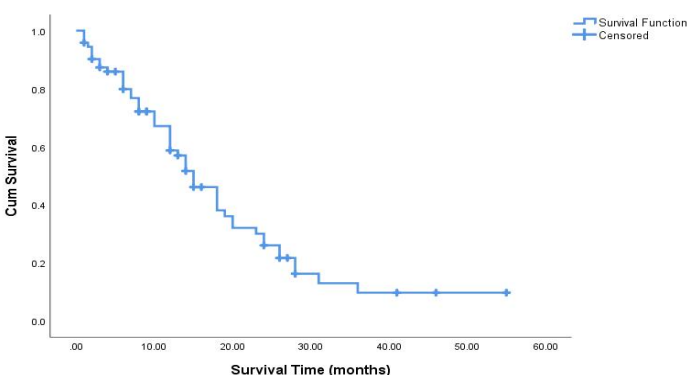


Figure 1: Overall survival time in months of patients having hepatocellular carcinoma (HCC) after TACE.

## Discussion:

Hepatocellular carcinoma (HCC) is a dominant malignancy in Asia-Pacific region. Etiologic factors in Asians are different from those in western patients, chronic hepatitis B and C infections being the commonest in Asians . TACE is the mainstay of therapy in patients with unresectable HCC.

Author	Y e a r	Therapy	Number	Median survival (months)	P
Zeeneldin AA <sup>20</sup>	2013	Doxyrubicin+cisplatin +epirubicin	221	16	<0.001
Do Seon Song <sup>21</sup>	2015	Lipiodol+cisplatin+epi rubicin	119	10.3	<0.001
Lencioni R <sup>22</sup>	2016	Multi drug regimen	Meta-analysis	19.4	
Kong JY <sup>23</sup>	2018	Fropisetron + Tegafor	347	8	<0.5

Table 2: Series of TACE for hepatocellular carcinoma in comparison with our study.

TACE is a safe and effective procedure for HCC treatment and survival noted in our study is similar to international and national studies. In our study, results have shown that patients with complete embolization have better survival than those with partial embolization as shown in table 1. So attempt should be made to achieve as much complete embolization as possible balancing it with safety of patient. If there is more risk of non target embolization then one has to settle with incomplete embolization and utilize another modality like radiofrequency or microwave ablation.

## Conclusion:

In developing countries like Pakistan TACE is mainstay of treatment for patients with unresectable HCC. It increases the median survival time effectively and safely. Child Pugh Class, tumor size and embolization pattern have significant effect on survival of patients.

## References:

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