Callispheres® drug-eluting beads transarterial chemoembolization might be an efficient and safety down-staging therapy in unresectable liver cancer patients

Ning Peng ,Yiwen Tao ,Songqing He, Kaiyin Xiao Department of Hepatobiliary Surgery, First Affiliated Hospital of Guangxi Medical University , Nanning 530000 ,China

Abstract

We used the DEB-TACE method to treat 15 patients with HCC or cholangiocarcinoma. The emb olization material used was CalliSpheres® Microspheres (CSM) (Jiangsu Hengrui Medicine Co. L td., Jiangsu, China), and the chemotherapy drug was pirarubicin. After the number of DEB-TACE treatments, all patients received curative resection or palliative resection. The results showed that although DEB-TACE is related to promising efficacy and low toxicity in unresectable liver cancer patients, which could effectively delay tumor progression or prevent recurrence during short-term (within 6 months), it is still less effective over longer periods, and could not achieve response rate s and cure the tumor comparable to curative therapy. There is therefore a requirement with additi onal and effective treatment strategies for unresectable liver cancer patients, including the optimi zation of DEB-TACE and its combination with other treatment modalities. More importantly, we dis covered that 15 (100%) patients could receive resection after DEB-TACE, suggesting that after D EB-TACE, the rate for unresectable patients received resection was 100%.

Results



Treatment response after DEB-TACE at one month

	в	с	
94039 P* 0.001	ž		13 1100 B Biologi and 5 0 Koj Alter DEB-TACE

Comparison of tumor diameters, BCLC stage and Child-pugh stage before and after DEB-TACE

	Residual liver volume (cm ²)				
No. –	Before DEB-TACE	After DEB-TACE	Increase	Increase rate (%)	P value
1	1182.0	1064.0	-118.0	-10.0	
2	1006.0	1083.0	77.0	7.7	
3	1266.0	1407.0	141.0	11.1	
4	1021.8	972.8	-49.0	-4.8	
5	705.0	832.0	127.0	18.0	
6	1514.0	1659.0	145.0	9.6	
7	796.8	706.0	-90.8	-11.4	
8	784.0	1169.0	385.0	49.1	0.007
9	1547.0	1740.0	193.0	12.5	
10	1266.0	1358.0	92.0	7.3	
11	1371.0	1371.0	0.0	0.0	
12	1127.0	1347.0	220.0	19.5	
13	944.0	1066.0	122.0	12.9	
14	909.0	1100.0	191.0	21.0	
15	554.0	713.0	159.0	28.7	
Mean	1066.2	1172.5	106.3	11.4	

The residual liver volume before and after DEB-TACE

Liver indexes	function	Before DEB-TACE	After DEB-TACE	<i>P</i> value
ALB (g/L)		42.4 (38.2-44.7)	39.8 (37.0-42.3)	0.334
TP (g/L)		70.5 (63.2-76.0)	72.0 (63.8-79.0)	0.256
TBIL (µm	ol/L)	8.7 (7.3-10.9)	10.2 (7.0-13.0)	0.733
TBA (μmo	ol/L)	7.3 (2.9-15.9)	6.2 (3.4-13.9)	0.513
ALT (U/L)		50.0 (22.0-59.0)	30.0 (24.0-46.0)	0.609
AST (U/L)		33.0 (26.0-59.0)	30.0 (26.0-37.0)	0.593
ALP (U/L)		109.0 (91.0-130.0)	120.0 (94.0-158.0)	0.050

The level of liver function indexes before and after DEB-TACE



In total patients, there were 14 (93.3%) patients received with curative resection, and 1 (6.7%) patient received palliative resection

Summary



Comparison of tumor markers before and after DEB-TACE



The median value of RFS was 25.0 months (95%CI: 5.2-44.8 months), and the percentage of 1-year accumulating RFS was 64.6% as well as 2-year accumulating RFS was 55.4%. As to OS, although its median value was unable to assess, the percentage of 1-year accumulating OS was 100.0% as well as 2-year accumulating OS was 77.8%

1.DEB-TACE decreases tumor diameter and promotes the growth of residual liver volume in unresectable liver cancer patients.

2.after DEB-TACE treatment, 100% of patients could receive surgery.

These data suggest that DEB-TACE might be effective and safety as a down-staging therapy in unresectable liver cancer patients.