

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.e-asianjournalsurgery.com

ORIGINAL ARTICLE

Comparison of the outcomes of hepatocellular carcinoma after hepatectomy between two regional medical centers in China and Japan

Kai Wang ^{a,b}, Susumu Eguchi ^{b,*}, Masaaki Hidaka ^b, Tao Jin ^a, Akihiko Soyama ^b, Tamotsu Kuroki ^b, Mingwen Huang ^a, Linqun Wu ^a, Shubing Zou ^a, Jianghua Shao ^a

^a Department of Hepato-Biliary and Pancreatic Surgery, The Second Affiliated Hospital of Nanchang University, No.1 Minde Road, Nanchang 330006, PR China

^b Department of Surgery, Nagasaki University Graduate School of Biomedical Sciences, 1-7-1 Sakamoto, Nagasaki 852-8501, Japan

Received 18 November 2015; received in revised form 24 February 2016; accepted 1 March 2016

KEYWORDS

China;
comparison;
hepatectomy;
hepatocellular
carcinoma;
Japan

Summary *Background:* Hepatocellular carcinoma (HCC) is a common malignant disease of the liver in China and Japan. The purpose of this study was to compare the outcomes of HCC patients after hepatectomy between two regional medical centers in China and Japan.

Methods: Data on HCC after hepatectomy were collected from January 2005 to December 2014 from Nagasaki University Hospital in Nagasaki, Japan and the Second Affiliated Hospital of Nanchang University in Nanchang, China. The patient and tumor characteristics, HCC etiology, and overall survival rates after hepatectomy were investigated.

Results: Two hundred patients in the Nagasaki group and 238 patients in the Nanchang group were diagnosed with HCC and underwent hepatectomy. The major underlying liver diseases were hepatitis C infection (32%, 64/200) and nonalcoholic steatohepatitis (NASH) (34.5%, 69/200) in the Nagasaki group, while in the Nanchang group, hepatitis B infection (79.4%, 189/238) was the dominant etiology. Large tumors (> 5 cm), the presence of a tumor capsule and a high alpha-fetoprotein value (≥ 400 U/L) were more frequently observed in the Nanchang group as compared with the Nagasaki group ($p < 0.05$). According to an outcome analysis, the Nanchang patients showed worse survival rates as compared with Nagasaki patients,

Conflicts of interest: The authors have no conflicts of interest relevant to this article.

* Corresponding author. Department of Surgery, Nagasaki University Graduate School of Biomedical Sciences, 1-7-1 Sakamoto, Nagasaki 852-8501, Japan.

E-mail address: sueguchi@nagasaki-u.ac.jp (S. Eguchi).

<http://dx.doi.org/10.1016/j.asjsur.2016.03.002>

1015-9584/Copyright © 2016, Asian Surgical Association. Published by Elsevier Taiwan LLC. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Please cite this article in press as: Wang K, et al., Comparison of the outcomes of hepatocellular carcinoma after hepatectomy between two regional medical centers in China and Japan, Asian Journal of Surgery (2016), <http://dx.doi.org/10.1016/j.asjsur.2016.03.002>

particularly those with American Joint Committee on Cancer stages I and III due to the aggressive character of HCC in the Nanchang group.

Conclusion: There are significant differences in the clinicopathologic features and outcomes of HCC patients from Japan and China. These differences may impact the eligibility for potentially curative therapy and the prognosis of patients with HCC.

Copyright © 2016, Asian Surgical Association. Published by Elsevier Taiwan LLC. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Primary liver cancer is the sixth most frequent malignancy worldwide, and it is the second leading cancer in terms of mortality, with hepatocellular carcinoma (HCC) being the most common subtype of primary liver cancer. The liver cancer incidence in Eastern Asia is the highest in the world.¹ In both China and Japan, HCC is one of the most common malignant tumors; however, in China, the predominant underlying liver disease of HCC is hepatitis B virus infection, which differs from that found in Japan. According to a nationwide survey by the Liver Cancer Study Group of Japan, although the proportion of hepatitis virus-related HCC decreased in Japan between 2005 and 2015, the HBV infection rate was 13.1%, and the HCV infection rate was 67.7%.² Moreover, the incidence of nonBnonC-HCC more than doubled during the same period, from 6.8% to 17.3%.² Different etiological assessments and treatment methods may result in different outcomes between China and Japan.

The main purpose of this study was to compare the overall survival rates of patients who underwent curative hepatectomy for HCC between China and Japan and to identify the risk factors that affect the outcome of HCC after curative hepatectomy. We used data collected from two regional medical centers: Nagasaki University Hospital, Nagasaki, Japan, and the Second Hospital affiliated of Nanchang University, Nanchang, China. Nagasaki is the capital and the largest city of Nagasaki Prefecture on the island of Kyushu in Japan. As of January 1, 2009, the estimated population was 446,007, and the total area covers 406.35 km². Nanchang is the capital of Jiangxi Province in southeastern China. As of 2010, ~5,042,565 individuals live in the prefecture, of which 2,357,838 live in an area comprising all five urban districts. All chief leading surgeons who made the decisions and performed surgery in both facilities had > 15 years of hepatobiliary and pancreatic surgical experience.

2. Materials and methods

2.1. Study setting and design

A retrospective review was conducted regarding the source population in the patient-information database of the Department of Surgery, Nagasaki University Hospital and the Department of Hepatobiliary and Pancreatic Surgery, Second Affiliated Hospital of Nanchang University. The charts of all patients who had a HCC diagnosis confirmed by

histopathology were examined for detailed data elements that identified 200 patients (the Nagasaki group) and 238 patients (the Nanchang group) with HCC who had undergone curative hepatectomy with tumor-negative resection margins (R0 resection) as a first-line antitumor treatment between January 2005 and December 2014 in the two facilities. None of the patients had received presurgical

Table 1 Comparison of clinicopathologic characteristics.

Variable	Nagasaki group (n = 200)	Nanchang group (n = 238)	p
Gender			0.006
Male	153 (76.5)	206 (86.6)	
Female	47 (23.5)	32 (13.4)	
Age (y)			<0.001
Mean ± SD	68 ± 10.7	52 ± 12.7	
Range	31–90	17–82	
Underlying liver disease			<0.001
HBV	52 (26)	189 (79.4)	
HCV	64 (32)	0	
NASH	69 (34.5)	14 (5.9)	
Alcohol	12 (6)	1 (0.4)	
HBV-HCV	1 (0.5)	1 (0.4)	
HBV-Alcohol	1 (0.5)	33 (13.9)	
HCV-Alcohol	1 (0.5)	0	
Child-Pugh			0.809
A	188 (94)	225 (94.5)	
B	12 (6)	13 (5.5)	
C	0	0	
AFP level distribution (ng/mL)			<0.001
≤400	165 (82.5)	141 (59.2)	
>400	35 (17.5)	97 (40.8)	
Tumor size (cm)			<0.001
≤5	148 (74)	115 (48.3)	
>5	52 (26)	123 (51.7)	
Tumor numbers			0.018
≤3	197 (98.5)	224 (94.1)	
>3	3 (1.5)	14 (5.9)	
Tumor capsule			<0.001
Present	146 (73)	213 (89.5)	
Absent	54 (27)	25 (10.5)	
Vascular invasion			<0.001
Present	41 (20.5)	20 (8.4)	
Absent	159 (79.5)	218 (91.6)	

Download English Version:

<https://daneshyari.com/en/article/8831060>

Download Persian Version:

<https://daneshyari.com/article/8831060>

[Daneshyari.com](https://daneshyari.com)