

# The Impact of existence of hepatitis B virus infection on severe alcoholic liver cirrhosis

## B型肝炎感染對嚴重酒精性肝硬化的影響

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### BACKGROUND

Both alcohol abuse and hepatitis viruses infection can lead to chronic liver disease even cirrhosis. According to previous reports, alcohol and hepatitis B virus (HBV) may have synergistic effects in the development of liver disease and even exacerbate hepatic injury. Increasing alcohol consumption has resulted in an increased numbers of alcoholic liver disease patients in Taiwan where a high prevalence of hepatitis B virus infection was also noted.

### AIMS

To investigate and compare the clinical characteristics of severe alcoholic liver cirrhosis in patients with and without concomitant HBV infection.

### METHODS

Among 162 deceased patients with alcoholic liver cirrhosis between Jan. 2006 and Dec. 2016, 22 were found to have concomitant HBV infection. Among these patients, those who were followed shorter than one year (74 patients including 8 patients with coexistence of HBV infection) were excluded. They were classified into two groups: alcoholic liver cirrhosis with concomitant HBV infection (AL+B) and without HBV infection (AL-B). Patients were evaluated on the basis of age, gender, laboratory data and symptoms. Data were statistically analyzed using the chi-squared test & student's t test. Analysis of survival was performed using the Kaplan-Meier method.

### RESULTS

No significant difference was found between the (AL+B) and (AL-B) groups, comparing average age and the clinical data. But the alcoholic liver cirrhosis with concomitant HBV infection group (AL+B) was found to have a shorter survival time than the (AL-B) group. Besides, anemia and thrombocytopenia were related to shorter survival.

### CONCLUSION

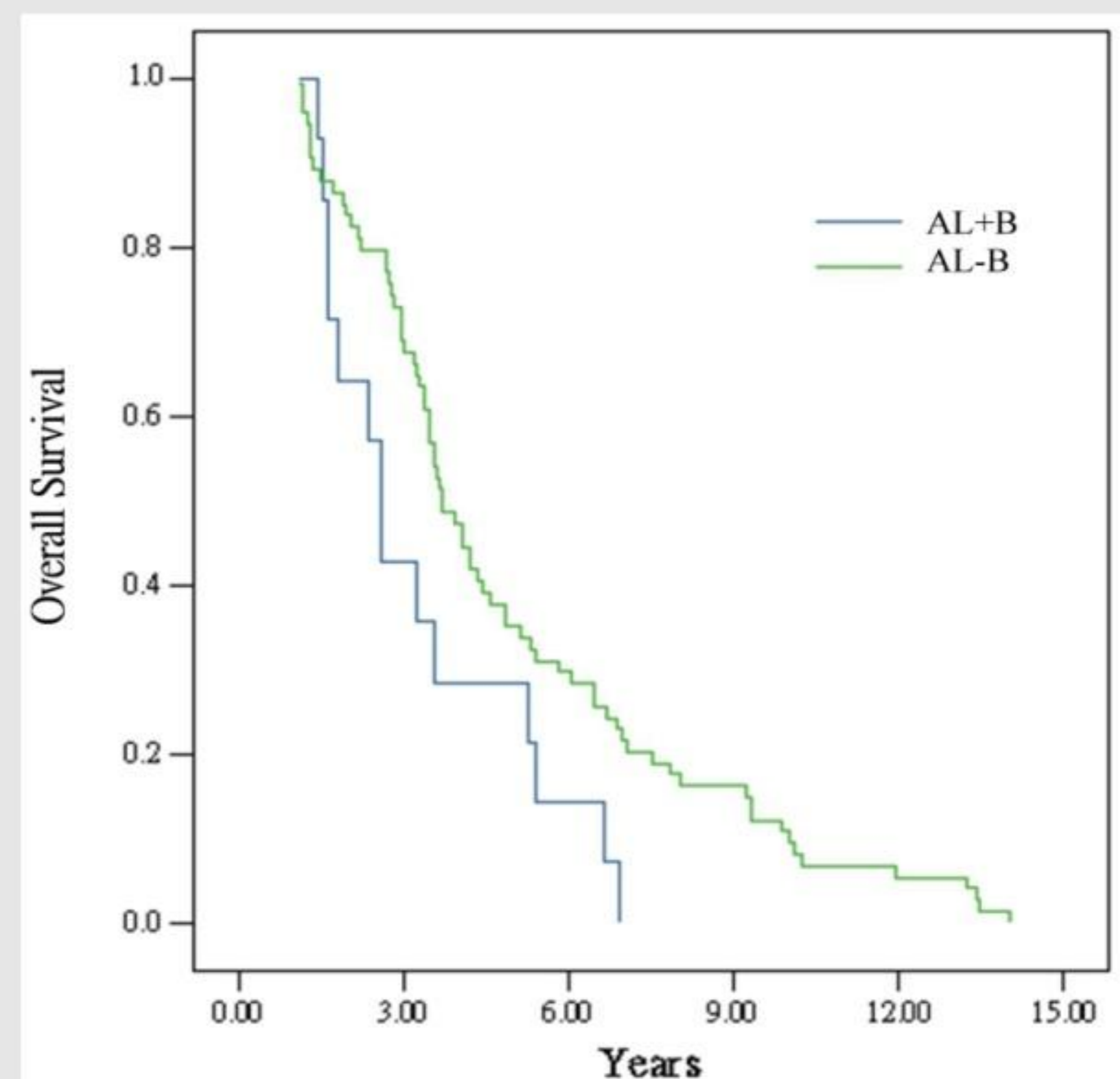
Clinical features of severe alcoholic liver cirrhosis with concomitant HBV infection have no significant difference from that without HBV infection. But the survival time was significant shorter in patients with coexistence of alcoholism and HBV infection.

Clinical Features		AL-B	AL+B
Gender	Male	71	14
	Female	3	0
Age	<65 y/o	68	14
	>=65 y/o	6	0
Ascites	Nil	24	3
	Mild	23	7
	Moderate	16	3
	Severe	11	1
Child-Pugh Class	B	7	5
	C	45	8

**Table 1.** Clinical features of subjects in 2 separate group: alcoholic liver cirrhosis with concomitant HBV infection group (AL+B) and without HBV infection group (AL-B).

Laboratory Data	Unit	AL-H	AL+H
WBC	/ $\mu$ L	12165 $\pm$ 7754	10768 $\pm$ 5456
Hb	g/dL	10.00 $\pm$ 2.41	10.11 $\pm$ 2.55
Platelet	/ $\mu$ L	108322 $\pm$ 90273	83321 $\pm$ 51270
PT	s	23.76 $\pm$ 14.39	20.80 $\pm$ 8.26
GOT (AST)	U/L	206.38 $\pm$ 413.67	215.79 $\pm$ 230.88
GPT (ALT)	U/L	55.32 $\pm$ 70.48	88.21 $\pm$ 121.47
Total Bilirubin	mg/dL	9.81 $\pm$ 9.81	11.89 $\pm$ 10.32
Albumin	g/dL	2.33 $\pm$ 0.49	2.40 $\pm$ 0.52
Serum Creatinine	mg/dL	2.80 $\pm$ 2.09	2.08 $\pm$ 1.77
Serum Sodium, Na	mmol/L	16.30 $\pm$ 10.06	133.54 $\pm$ 7.99
Serum Potassium, K	mmol/L	4.22 $\pm$ 1.24	4.08 $\pm$ 0.94

**Table 2.** Laboratory features of subjects in 2 separate group: alcoholic liver cirrhosis with concomitant HBV infection group (AL+B) and without HBV infection group (AL-B). Data are presented as means  $\pm$  standard deviation. There were no significant between-group differences.



**Figure 1.** Kaplan-Meier survival curve showed significant poorer survival for patients with alcoholic liver cirrhosis and concomitant HBV infection (AL+B group), P=0.0319