

Table-2.

CMV-plasma-DNAemia (Active CMV infection) with respect to different time points (Day 7, 14 and 21)

CMV DNAemia (log ₁₀ IU/ml)	Day 7 (n=55) No. (%)	Day 14 (n=18) No. (%)	Day 21 (n=9) No. (%)
CMV DNAemia at any level (≥ 2.69)*	17(30.9)	05(27.7)	03(33.3)
CMV DNAemia (2.69-2.99)	8 (14.5)	2 (11.1)	1 (11.1)
CMV DNAemia (3.0-3.99)	9 (16.4)	1 (5.6)	2 (22.2)
CMV DNAemia (≥ 4)	---	2 (11.1)	---
Median CMV load (range), log ₁₀ IU/ml	2.71 (1.42 – 3.06)	2.62(1.73 – 3.13)	2.72 (2.63 – 3.27)

* 500 International units /ml= (2.69 log₁₀) IU/ml

Figure.2 (a)

Time-to-Death (in days) for cirrhotic patients died in Liver-ICU according to active CMV infection status.

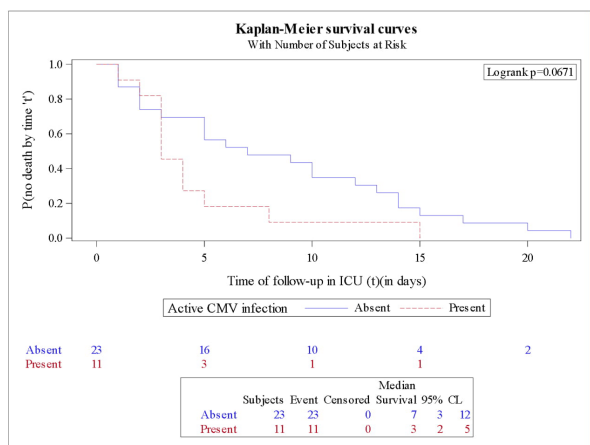
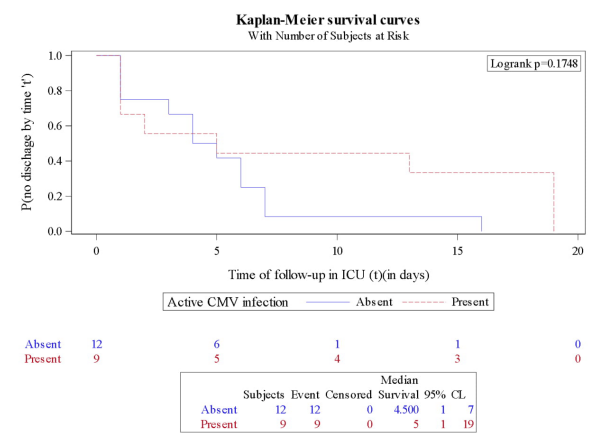


Figure.2 (b)

ICU Length of Stay (in days) among cirrhotic patients discharged or transferred from Liver-ICU according to active CMV infection status



Disclosures. All authors: No reported disclosures.

2306. Impact of Cytomegalovirus Disease on New-Onset Dementia: Population-Based-Matched Case-Control Cohort Study

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Background. The association of human cytomegalovirus (CMV) with dementia is still controversial. Previous studies suggested that serostatus of latent CMV infection assessed by serum CMV IgG could play a role in development of neurodegeneration with cognitive impairment. This study is aimed to evaluate the relation of CMV tissue invasive diseases to vascular dementia and Alzheimer's dementia.

Methods. The ICD-10 codes from the National Health Insurance Database covering 50 million people were used to collect the patient group (n = 687) aged ≥ 40 years with CMV tissue invasive end-organ diseases and control group (n = 3,435) matched by non-CMV infection, age and sex with 1:5 ratio. The subjects were retrieved for enrolled patients during 2010–2014 with wash-out period for 6 years, and followed until December 2016.

Results. Multivariate regression model adjusted by age and sex showed a significantly higher incidence rate of dementia (odds ratio [OR], 2.10 and 95% confidence intervals [CI], 1.45–3.05) in patients with CMV disease. According to the type of dementia, the risk of vascular dementia in patient group (OR, 3.31 and 95% CI, 1.30–8.41) was higher than Alzheimer's dementia (OR, 1.74 and 95% CI, 1.09–2.78). In the age subgroup analysis adjusted by sex, patients aged 40–59 years with CMV disease had a higher risk of dementia than those aged ≥ 60 years (OR, 12.3 [95% CI, 3.2–47.6] vs. 1.8 [95% CI, 1.2–2.7], P = 0.010).

Conclusion. CMV disease independently increased the risk of vascular dementia as well as Alzheimer's dementia.

Table 1. Multivariate logistic regression analyses to examine the effect of cytomegalovirus disease on development of dementia.

Type of Dementia	CMV diseases	No.	Event	Total follow-up duration (years)	IR*	Model 1	Model 2	Model 3
Total	No	3,435	105	14083	7.46	1 (Ref.)	1 (Ref.)	1 (Ref.)
	Yes	687	38	2564	14.82	1.99 (1.37-2.88)	2.10 (1.45-3.05)	2.03 (1.39-2.97)
AD	No	3,435	77	14083	5.47	1 (Ref.)	1 (Ref.)	1 (Ref.)
	Yes	687	23	2564	8.97	1.65 (1.04-2.63)	1.74 (1.09-2.78)	1.73 (1.08-2.78)
VD	No	3,435	12	14083	0.85	1 (Ref.)	1 (Ref.)	1 (Ref.)
	Yes	687	7	2564	2.73	3.14 (1.24-7.98)	3.31 (1.30-8.41)	2.90 (1.17-7.56)
Other	No	3,435	16	14083	1.14	1 (Ref.)	1 (Ref.)	1 (Ref.)
	Yes	687	8	2564	3.12	2.71 (1.16-6.34)	2.85 (1.22-6.67)	2.76 (1.16-6.57)

Data are expressed as number or OR (95% CI). Model 1, Non-adjusted; Model 2, age- and sex-adjusted; Model 3, age-, sex-, low income status, NIDDM-, hypertension-, and dyslipidemia-adjusted. *per 1,000 individuals. Abbreviations: AD, Alzheimer's dementia; CI, confidence interval; CMV, cytomegalovirus; IR, incidence rate; NIDDM, non-insulin-dependent diabetes mellitus; No., number of patients; OR, odds ratio; Ref., reference; VD, vascular dementia.

Figure 1. Kaplan-Meier curves for incidence probability of dementia in patients with CMV disease and controls without CMV disease adjusted by age and sex.

(A) Total dementia
(B) Alzheimer's dementia
(C) Vascular dementia

Abbreviation: CMV, cytomegalovirus

Figure 1. (A)

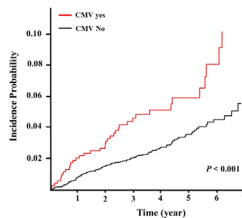


Figure 1. (B)

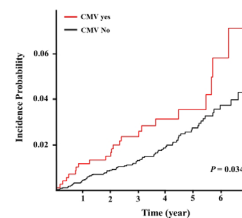
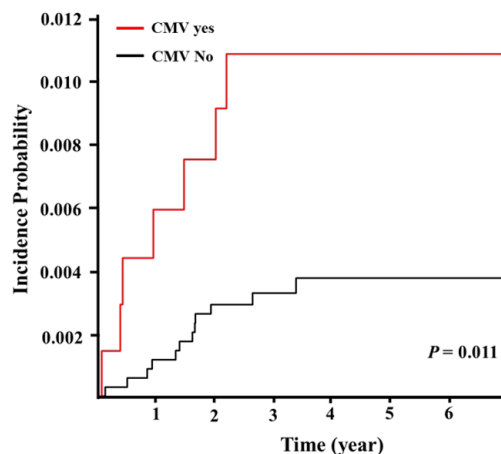


Figure 1. (C)



Disclosures. All authors: No reported disclosures.