

Prognostic Value of Albumin/Globulin Ratio in Survival and Lymph Node Metastasis in Patients with Cancer: A Systematic Review and Meta-analysis

Jieshan Chi<sup>1,2</sup>, Qizhi Xie<sup>1,2</sup>, Jingjing Jia<sup>1</sup>, Xiaoma Liu<sup>1</sup>, Jingjing Sun<sup>1</sup>, Junhui Chen<sup>3</sup>, Li Yi<sup>1</sup>

1 Department of neurology, Peking University Shenzhen Hospital, Shenzhen 518036, China

2 Shantou University Medical College, Shantou 515041, China

3 Department of Minimally Invasive Intervention, Peking University Shenzhen Hospital, Shenzhen 518036, China

Correspondence to: Li Yi, email: [yilitj@hotmail.com](mailto:yilitj@hotmail.com), Tel No.: (+86)13823688918

## SUPPLEMENTARY FILES

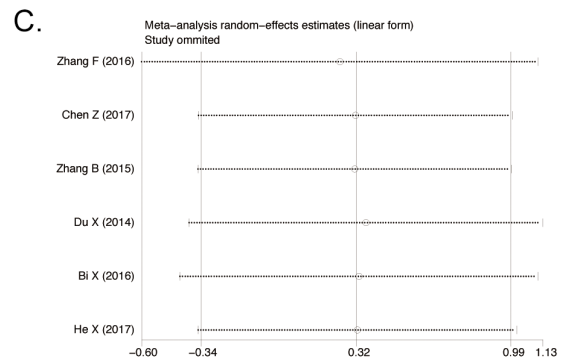
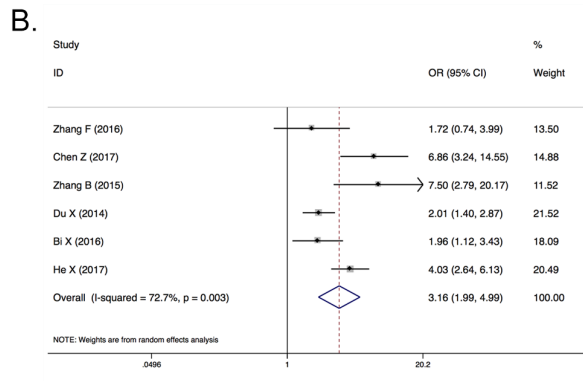
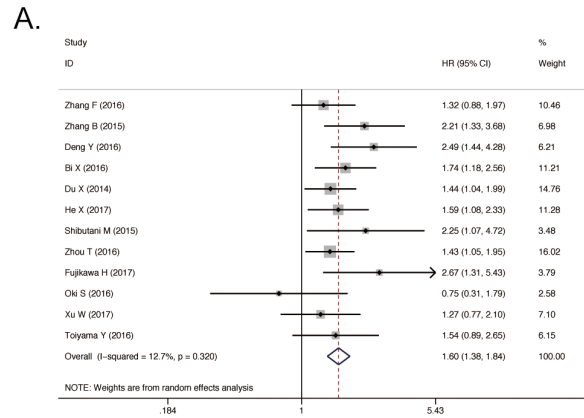
Author (year)	Country	Selection				Comparability		Outcome			Score
		Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	
Zhang J (2016)	China	*	*	*	*	*	*	*	\	*	8
Zhang F (2016)	China	*	*	*	*	\	*	*	*	\	7
Chen Z (2017)	China	*	*	*	*	*	*	*	*	\	8
Zhang B (2015)	china	*	*	*	*	*	*	*	*	*	9
Deng Y (2016)	China	*	*	*	*	*	*	*	*	\	8
Bi X (2016)	China	*	*	*	*	*	*	*	*	\	8
Du X (2014)	China	*	*	*	*	\	*	*	*	*	8
He X (2017)	China	*	*	*	*	\	*	*	*	\	7
Shibutani M (2015)	Japan	*	*	*	*	\	\	*	\	*	6
Zhou T (2016)	China	*	*	*	*	*	*	*	\	*	8
Fujikawa H (2017)	Japan	*	*	*	*	\	*	*	*	\	7
Oki S (2016)	Japan	*	*	*	*	\	*	*	\	\	6
Xu W (2017)	china	*	*	*	*	\	*	*	\	*	7
Toiyama Y (2016)	Japan	*	*	*	*	\	*	*	*	\	7

**Table S1: Methodological quality of the eligible studies according to the Newcastle-Ottawa scale.** Item1.Is the case definition adequate; Item2. Representativeness of the cases; Item3.Selection of Controls; Item4.Definition of Controls; Item5.Comparability of cases and controls on the basis of the design or analysis: study controls for the most important factor, including liver disease or liver dysfunction; Item6.Comparability of cases and controls on the basis of the design or analysis: study controls for any additional factor,

including age and gender; Item7. Ascertainment of exposure; Item8. Same method of ascertainment for cases and controls; Item9. Non-Response rate.

Study	Toiyama	Zhang	Oki	Zhang	Chen	He	Xu	Zhou	Fujikawa	Zhang	Deng	Bi	Shibutani	Du	Total
Year	2016	2016	2017	2016	2017	2017	2017	2016	2017	2015	2016	2016	2015	2014	
Age															8
T															7
Sex															6
Stage															6
Grade															5
Lymph node metastasis															4
Tumor size															4
Lymphatic invasion															4
CEA															4
ALB															4
Histology															3
N															3
Metastasis															3
LYM															3
NLR															3
LDH															3
Venous invasion															2
CA199															2
AFP															2
GLB															2
mGPS															2
AKP															2
GPS															2
Adjuvant chemotherapy															2
Primary site															2
Chemotherapeutic regimens															2
Serosal invasion															1
Pathological types															1
Portal vein tumor thrombosis															1
Venous invasion															1
SCCA															1
Neo-adjuvant therapy															1
Preoperative serum albumin															1
Tumor location															1
Alcohol															1
Smoking															1
WBC															1
NEC															1
AGS															1
Tumor necrosis															1
Hemoglobin															1
MLR															1
PLR															1
Serum creatinine															1
Uric acid															1
KPS															1
PNI															1
Adjuvant radiotherapy															1
ECOG-PS															1
Preoperative CKD stage															1
Ureter involvement															1
Cancer embolus															1
B symptoms															1
Extranodal sites															1
Treatment															1
Detection of unresectable tumor															1
Peritoneal dissemination															1
Molecular targeted therapy															1
Cholinesterase															1
Cholesterol															1
Total	10	5	9	18	15	10	8	3	6	6	5	11	12	6	124

**Figure S1:** The covariates used in the multivariable models of each study. This is a data microarray illustrating all of the covariates studied (X-axis: Studies; Y-axis: Covariates). Rows are in descending order based on how many times each covariate was included in a multivariable model. Orange = included in the multivariable models. Black = not included in the multivariable models. T, T stage; CEA, Carcinoembryonic antigen; ALB, Albumin; N, N stage; LYM, Lymphocyte; NLR, Neutrophil to lymphocyte ratio; LDH, Lactate dehydrogenase; CA199, Carbohydrate antigen 199; AFP, Alpha fetoprotein; GLB, Globulin; AKP, Alkaline phosphatase; GPS, Glasgow prognostic score; SCCA, Squamous cell carcinoma antigen; WBC, White blood cell; NEC, Neutrophil cell; AGS, albumin-globulin score;



**Figure S2: The meta-analysis results from 12 eligible studies and association between AGR and tumor stage. A) The Forest Plot of HR with 12 publications for the correlation between AGR and OS. B) The initial Forest Plot of OR for the correlation between AGR and tumor stage. C) Sensitivity analysis of the correlation between AGR and tumor stage.**