

Supplementary material

Example of search criteria in “PubMed”:

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((("Neoplasms"[Mesh]) OR ((((((neoplasm[Title/Abstract]) OR cancer[Title/Abstract]) OR carcinoma[Title/Abstract]) OR tumor[Title/Abstract]) OR adenocarcinoma[Title/Abstract]) OR oncology[Title/Abstract]) OR malignant[Title/Abstract]))) AND (((((LMR[Title/Abstract]) OR lymphocyte monocyte ratio[Title/Abstract]) OR lymphocyte-monocyte ratio[Title/Abstract]) OR lymphocyte/monocyte ratio[Title/Abstract]) OR lymphocyte to monocyte ratio[Title/Abstract])
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Supplementary Table S1

Table S1. Newcastle-Ottawa scale used for methodological quality assessment of Cohort Study

Check List

Selection

(1) Representativeness of the exposed cohort

- (a) Truly representative of the average 'digestive system cancer patients' in the community (1 star)
- (b) Somewhat representative of the average 'digestive system cancer patients' in the community (1 star)
- (c) Selected group of users (e.g. nurses, volunteers)
- (d) No description of the derivation of the cohort

(2) Selection of the non-exposed cohort

- (a) Drawn from the same community as the exposed cohort (1 star)
- (b) Drawn from a different source
- (c) No description of the derivation of the non-exposed cohort

(3) Ascertainment of exposure (Proof of digestive system cancer and LMR measurement)

- (a) Secure record (eg. Surgical records) (1 star)
- (b) Structured interview (1 star)
- (c) Written self-report
- (d) No description

(4) Demonstration that outcome of interest was not present at start of study

- (a) Yes (1 star)
- (b) No

Comparability

(1) Comparability of cohorts on the basis of the design or analysis

- (a) Study controls for '1, 2, 3' (one star was assigned if more than 1 of these 3 characteristics were reported; 0 star was assigned if none of these 3 characteristics was reported)
- (b) Study controls for '4, 5, 6, 7, 8, 9' (one star was assigned if more than 1 of these 6 characteristics was reported; 0 star was assigned if none of these 6 characteristics was reported)

Underlined and quoted phrases are provided in the scale to allow for adjustment to particular studies.

Comparability variables: 1, Infection; 2, Immune system disorders; 3, Anti-inflammation drugs taken; 4, Age; 5, Gender; 6, Tumor Stage; 7, Metastasis; 8, Tumor grade; 9, Other

Table S1. Newcastle-Ottawa scale used for methodological quality assessment of Cohort Study (continued)

Check List

Outcome

(1) Assessment of outcome (Death or recurrence)

- (a) Independent blind assessment (1 star)
- (b) Record linkage (1 star)
- (c) Self-report
- (d) No description

(2) Was follow-up long enough for outcomes to occur? (Death or recurrence)

- (a) Yes ('2-5 years') (1 star)
- (b) No

(3) Adequacy of follow-up of cohorts

- (a) Complete follow-up: all subjects accounted for (1 star)
 - (b) Subjects lost to follow-up unlikely to introduce bias: small number lost '25%' or description provided of those lost (1 star)
 - (c) Follow-up rate '75%' and no description of those lost
 - (d) No statement
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Supplementary Results

Table S2. Assessment of Quality of Studies

Author	Year	Selection				Comparability	Outcome assessment			Score
		1	2	3	4	5	6	7	8	
Chan	2016	*	*	*	*	*	*	*	*	*****
Facciorusso	2016	*	*	*	*	*	*	*	*	*****
Hsu	2016	*	*	*	*	*	*	*	-	*****
Li ¹	2016	*	*	*	*	**	*	*	*	*****
Li ²	2016	*	*	*	*	**	*	*	*	*****
Wu	2016	*	*	*	*	**	*	*	*	*****
Deng	2015	*	*	*	*	**	*	*	*	*****
Han	2015	*	*	*	*	**	*	*	*	*****
Huang	2015	*	*	*	*	*	*	*	-	*****
Kozak	2015	*	*	*	*	-	*	*	*	*****
Lin	2015	*	*	*	*	**	*	*	*	*****
Liu	2015	*	*	*	*	**	*	*	-	*****
Neal	2015	*	*	*	*	-	*	*	*	*****
Neofytou	2015	*	*	*	*	*	*	*	*	*****
Ozawa	2015	*	*	*	*	*	*	*	-	*****
Qi	2015	*	*	*	*	*	*	*	-	*****
Shibutani	2015	*	*	*	*	*	*	*	*	*****
Song	2015	*	*	*	*	*	*	*	-	*****
Xiao	2015	*	*	*	*	*	*	*	*	*****
Stotz ¹	2014	*	*	*	*	*	*	*	*	*****
Stotz ²	2014	*	*	*	*	*	*	*	*	*****
Zhou	2014	*	*	*	*	**	*	*	*	*****

-: zero point, *: One point, **: Two points

Table S3. Detailed Characteristics of included studies

Study	Year	No.	Country	Male (%)	Age	Site	Therapy	Stage	Follow up	Cut-off	Beyond cut-off (%)	Outcome	MVA	Method to get UVA HR
Chan	2016	1623	Australia	801 (49.4)	NA	Colorectal	with-Surg	NMS	52.0 ^{md}	2.38	797 (49.1)	OS	YES	Reported
Facciorusso	2016	127	Italy	83 (69.2)	66.0 ^{md}	Colorectal	no-Surg	MS	60.0 ^{md}	3.96	70 (55.1)	OS, RFS	YES	Reported
Hsu	2016	926	China	583 (63.0)	NA	Stomach	with-Surg	Mixed	32.0 ^{md}	4.8	416 (44.9)	OS	YES	Estimated
Li ¹	2016	144	China	77 (53.5)	62 ^{me}	Pancreas	with-Surg	NMS	14 ^{md}	2.8	68 (47.2)	OS, RFS	YES	Estimated
Li ²	2016	5336	China	3167 (59.4)	59 ^{md}	Colorectal	with-Surg	NMS	55.2 ^{md}	2.83	3988 (74.7)	OS, DFS	YES	Reported
Wu	2016	450	China	391 (86.9)	49.6 ^{me}	Liver	with-Surg	MS	45.5 ^{md}	3.77	269 (59.8)	OS, RFS	YES	Reported
Deng	2015	389	China	282 (72.5)	65.0 ^{md}	Stomach	with-Surg	Mixed	24.0 ^{md}	4.95	148 (38.0)	OS,CSS,DFS	YES	Estimated
Han	2015	218	China	177 (81.2)	60.5 ^{md}	Esophagus	with-Surg	NMS	38.6 ^{md}	2.57	173 (79.4)	OS, DFS	YES	Reported
Huang	2015	348	China	303 (87.1)	59.2 ^{me}	Esophagus	with-Surg	NMS	NA	2.93	145 (41.7)	CSS	YES	Reported
Kozak	2015	129	USA	55 (42.6)	67.0 ^{md}	Colorectal	with-Surg	NMS	24.7 ^{md}	2.6	64 (49.6)	OS, DFS	YES	Estimated
Lin	2015	210	China	185 (88.1)	NA	Liver	with-Surg	NMS	34.8 ^{md}	3.23	144 (68.6)	OS, RFS	YES	Reported
Liu	2015	326	China	283 (86.8)	59.2 ^{me}	Esophagus	with-Surg	NMS	49 ^{md}	2.30	158 (48.5)	OS	YES	Reported
Neal	2015	302	UK	192 (63.6)	66.0 ^{md}	Colorectal	with-Surg	MS	29.7 ^{md}	2.35	219 (72.5)	OS, CSS	NO	Reported
Neofytou	2015	140	UK	88 (62.9)	NA	Colorectal	with-Surg	MS	33.0 ^{md}	3.0	65 (46.4)	OS,CSS, DFS	YES	Reported
Ozawa	2015	117	Japan	69 (58.9)	62 ^{me}	Colorectal	with-Surg	MS	39.0 ^{md}	3.0	79 (68.0)	CSS, DFS	YES	Reported

Abbreviation: ^{md} Median; ^{me} Mean; Surg, surgery; NMS, non-metastatic stage; MS, metastatic stage; NA, not available; OS, overall survival; DFS, disease-free survival; RFS, recurrence-free survival; CSS, cancer-specific survival; MVA, multivariate analysis; UVA, univariate analysis; HR, hazard ratio

Table S3. Detailed Characteristics of included studies (continued)

Study	Year	No.	Country	Male (%)	Age	Site	Therapy	Stage	Follow up	Cut-off	Beyond cut-off (%)	Outcome	MVA	Method to get UVA HR
Qi	2015	211	China	134 (63.5)	61.2 ^{me}	Pancreas	no-Surg	Mixed	NA	3.3	109 (51.7)	OS	YES	Estimated
Shibutani	2015	104	Japan	59 (56.7)	64.0 ^{md}	Colorectal	no-Surg	MS	22.4 ^{md}	3.38	66 (63.5)	OS	YES	Reported
Song	2015	177	Korea	83 (46.9)	52.0 ^{md}	Colorectal	no-Surg	MS	3.1 ^{md}	3.4	64 (36.1)	OS	YES	Estimated
Xiao	2015	280	China	175 (62.5)	NA	Rectum	with-Surg	NMS	52.0 ^{md}	3.78	140 (50.0)	DFS	YES	Reported
Stotz ¹	2014	372	Austria	217 (58.3)	64.0 ^{md}	Colon	with-Surg	NMS	68.0 ^{md}	2.83	105 (28.2)	OS, RFS	YES	Reported
Stotz ²	2014	474	Austria	256 (54.0)	64.6 ^{me}	Pancreas	with-Surg	Mixed	36.0 ^{md}	2.8	201 (42.4)	CSS	YES	Reported
Zhou	2014	426	China	304 (71.4)	NA	Stomach	with-Surg	NMS	39.6 ^{md}	4.32	242 (56.8)	OS, RFS	YES	Reported

Abbreviation: ^{md} Median; ^{me} Mean; Surg, surgery; NMS, non-metastatic stage; MS, metastatic stage; NA, not available; OS, overall survival; DFS, disease-free survival; RFS, recurrence-free survival; CSS, cancer-specific survival; MVA, multivariate analysis; UVA, univariate analysis; HR, hazard ratio.