Appendix 1. Newcastle-Ottawa Quality Assessment Scale

SELECTION

1) Representativeness of the Exposed Cohort
a) Truly representative of the average cervical cancer patients in the community
b) somewhat representative of the average cervical cancer patients in the community
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
b) Drawn from a different source
c) No description of the derivation of the nonexposed cohort

3) Ascertainment of Exposure
a) secure record (eg, surgical records)
b) structured interview
c) Written self-report
d) No description

4) Demonstration that Outcome of Interest Was Not Present at Start of Study
a) Yes
b) No

COMPARABILITY

1) Comparability of Cohorts on the Basis of the Design or Analysis
a) Study controls for recurrence or metastasis
b) Study controls for any additional factors (age, sex, grade, tumor number, etc.)

OUTCOME

1) Assessment of Outcome

a) Independent or blind assessment stated in the paper, or confirmation of the outcome by reference to secure records (x-rays, medical records, etc.)
b) Record linkage (e.g. identified through ICD codes on database records)
c) Self-report (i.e. no reference to original medical records or x-rays to confirm the outcome)
d) No description.

2) Was Follow-Up Long Enough for Outcomes to Occur
a) Independent blind assessment
b) Record linkage
c) Self-report
d) No description

3) Adequacy of Follow Up of Cohorts
a) Complete follow-up – all subjects accounted for
b) Subjects lost to follow-up unlikely to introduce bias – small number lost – 25% follow-up, or description provided of those lost
c) Follow-up rate 75% and no description of those lost
d) No statement

Notes: A study can be awarded a maximum of one star for each numbered item of the Selection and Outcome.
A maximum of two stars for Comparability.

Appendix 2. Newcastle-Ottawa Quality Assessment

	Selection				Comparability	Outcome			
Study, year	**Representativeness of the exposed cohort**	**Selection of the nonexposed cohort**	**Ascertainment of exposure**	**Demonstration that outcome of interest was not present at start of study**	**Comparability of cohorts on the basis of the design or analysis**	**Assessment of outcome**	**Follow-up long enough for outcomes to occur (>3 years)**	**Adequacy of follow-up of cohort**	**Score**
Chopra et al., 2018	Participants were representative of cervical cancer patients (Stage IB2 – IVA). Patient and tumor-related variables such as age, comorbidities, FIGO stage at presentation, nodal involvement, and presence of hydronephrosis were recorded.	Yes ★	IHC was performed for SOX2, OCT4, Nanog, Podoplanin, CD44. ★	Yes ★	Multivariate analysis for confounders ★	OS ★	No	Two patients did not complete planned treatment). ★	6
Kim et al., 2015	450 patients with cervical cancer and CIN at Gangnam Severance Hospital, Yonsei University College of Medicine in Seoul, Korea and the Korea Gynecologic Cancer Bank through Bio & Medical Technology Development Program of the Ministry of Education, Science and Technology, Korea between 1996 and 2010. ★	Yes ★	IHC was performed for SOX2 and OCT4. ★	NA	Comparable on both design and analysis ★ ★	DFS, OS ★	Yes ★	15 patients (9.3%) died during the follow-up period. ★	8
Hellberg et al., 2009	165 women with invasive carcinoma stage IB – IV. The women were admitted to the Department of Gynecologic Oncology, Norrlands University Hospital, Umeå during	Yes ★	IHC was performed for CD44. ★	NA	Comparable on both design and analysis. ★ ★	OS. ★	Yes. ★	All histological subtypes were included in 10-years	8

	1984 to 1990. ★							survival. ★	
Ayhan et al., 2001	Eighty-eight patients surgically treated for carcinoma of the uterine cervix. All patients were treated by radical hysterectomy and pelvic paraaortic lymphadenectomy in the Department of Obstetrics & Gynecology, Hacettepe University School of Medicine between 1980 and 1994 ★	Yes ★	IHC was performed for CD44. ★	Yes ★	Comparable on both design and analysis ★ ★	OS ★	Yes ★	All patients were followed at 3-month intervals for the first 2 years and at 6-months periods thereafter. ★	9
Lambaudie et al., 2014	58 patients with advanced cervical cancer (IB2–IV FIGO stage), for whom pre-therapeutic biopsies were available, were followed-up at the Paoli Calmettes Cancer Institute (1996 and 2008) ★	Yes ★	IHC was performed for ALDH1 and CD44. ★	NA	NA	OS, PFS ★	Yes ★	NA	5
Uhl-Steidl et al., 1998	88 patients who underwent primary treatment (surgery or radiotherapy) at the Department of Obstetrics and Gynecology, Innsbruck, University Hospital, from January 1988 to July 1994 ★	Yes ★	IHC was performed for CD44. ★	NA	Study control for additional factors (age, stage, etc.) ★	OS, DFS ★	Yes ★	NA	6
Speiser et al., 1999	161 patients treated at Department of Gynecology & Obstetrics, University of Vienna Medical School and 76 cases treated at Gynaecological	Yes ★	IHC was performed for CD44. ★	NA	Comparable on both design and analysis ★ ★	OS ★	Yes ★	35 patients (15%) died from the disease within	8

	Cancer Center Austria ★						the observation period. ★	
Kainz et al., 1995	105 patients with surgically treated squamous cell carcinoma of the cervix stage IB to IIB	NA	IHC was performed for CD44. ★	NA	Study control for additional factors (age, stage, etc.) ★	OS ★	Yes ★	31 (21%) patients died during the observation. ★	5
Speiser et al., 1997	200 paraffin embedded tumor specimens of surgically treated FIGO stage-IB cervical cancer	Yes ★	IHC was performed for CD44. ★	NA	Multivariate analysis for confounders ★	OS ★	Yes ★	35 patients (17.5%) died from the disease within the observation period. ★	6
Yang Z et al., 2014	75 patients (formalin-fixed and paraffin-embedded postoperative tissue samples from January 2007 to December 2008 were obtained from the archives of the Department of Pathology of the Second Affiliated Hospital of Soochow University) ★	Yes ★	IHC was performed for SOX2. ★	NA	Study control for additional factors (age, stage, etc.) ★	DFS ★	Yes ★	NA	6
Costa et al., 2001	56 women with FIGO stage Ib bulky tumors ≥3 cm in diameter or stage IIa tumors seen at the Department of Obstetrics and Gynecology, S. Orsola-Malpighi Hospital, Bologna, Italy (April 1992 to September	NA	IHC was performed for CD44. ★	Yes ★	Study control for additional factors (age, stage, etc.) ★	RFS, OS ★	Yes ★	All patients followed up until July 2000. ★	7

	1997) ★								
Kainz et al., 1996	35 patients with surgically treated SCC of the cervix and metastasis disease in the pelvic lymph nodes	Yes ★	IHC was performed for CD44. ★	Yes ★	Study control for additional factors (age, stage, etc.) ★	RFS, OS ★	Yes ★	NA	6
Ji et al., 2014	43 CC patients and 28 normal cervix tissues were collected from the Department of Gynecology and Radiation Oncology (2011 and 2012) Xi'an Jiaotong University Medical School ★	Yes ★	IHC was performed for SOX2. ★	Yes ★	Study control for additional factors (age, stage, etc.) ★	OS ★	25.56 months (range 12-34 months).	NA	6
Shen et al., 2014	132 patients with localized cervical squamous carcinoma (LSCC) were documented in the Radiation Oncology Department of Xiangya Hospital and Affiliated Tumor Hospital of Xiangya Medical School, Central South University, Changsha, P.R. (January 2005 to March 2012) ★	Yes ★	IHC was performed for SOX2 and OCT4. ★	Yes ★	Comparable on both design and analysis ★ ★	PFS ★	Yes ★	NA	8
Yang Y et al., 2014	630 clinical cervical cancer tissues for immunohistochemical detection were selected from Jilin University and the Tumor Hospital of Liaoning Province from January 2003 to December	NA	IHC was performed for OCT4. ★	NA	Comparable on both design and analysis ★ ★	OS ★	Yes ★	8.1% lost to follow-up. ★	7

	2006 ★							
Yao et al., 2014	Cervical tumor tissues were obtained from the archives of the Department of Gynecology, Sun Yat-sen Memorial Affiliated Hospital, Sun Yat-sen University, Guangzhou, China (October 2003 to December 2007 and confirmed cervical cancer) ★	Yes ★	IHC was performed for ALDH1. ★	NA	Study control for additional factors (age, stage, etc) ★	OS ★	Yes ★	28 patients were lost to follow-up (14.1%). ★	7
Lv et al., 2015	74 patients with cervical squamous cell carcinoma (SCC) from The First Hospital of Anhui Medical University (Hefei, China) between January 2013 to June 2013 ★	Yes ★	IHC was performed for ALDH1. ★	NA	Comparable on both design and analysis ★ ★	OS, DFS ★	follow-up time was 12.3 months (6–15.5 months)	5 patients died (6.7%). ★	7
Fu et al., 2018	332 patients (from January 2004 and December 2006) with pathological proof of cervical cancer in Kaohsiung Chang Gung Memorial Hospital Taiwan ★	Yes ★	IHC was performed for ALDH1, SOX2 ★	NA	Comparable on both design and analysis ★ ★	OS, DFS ★	Yes ★	2 patients (recurrence and death) ★	8
Hou et al., 2015	179 cervical cancer patients treated between January 2001 to December 2008 were included in the study	Yes ★	IHC was performed for ALDH1 ★	Yes ★	Comparable on both design and analysis ★ ★	OS, RFS ★	Yes ★	12% had recurrent disease ★	8
Xie et al., 2016	Patients diagnosed with cervical cancer and registered at Sun Yat-sen Memorial Hospital, Sun Yat-sen University, were considered for the	Yes ★	IHC was performed for ALDH1 ★	NA	Comparable on both design and analysis ★ ★	OS, DFS ★	Yes ★	34.6% of patients relapsed, of whom	7

	study from January 2003 to June 2008. ★							88.9% died.	
Hashiguchi et al., 2019	The study included cases with invasive squamous cell carcinoma of the uterine cervix and CIN3 who were treated at Saga University from January 2010 to December 2014. ★	Yes ★	IHC was performed for CK17. ★	Yes ★	Comparable on both design and analysis ★ ★	OS ★	Yes ★	NA	8
Ammothumkandy et al., 2016	The study included 153 cases with early and late stage of cervical cancer.	NA	Flow cytometry was performed for CD49f (not fully described).	Yes ★	Multivariate analysis for confounders ★	OS, DFS ★	Yes ★	There were 12 cases (7.8%) with unknown cause of death all of whom were presumed to have been lost to disease. ★	5

*NA= not available, OS= overall survival, DFS=disease free survival, RFS= recurrence-free survival, IHC= immunohistochemistry, CIN= cervical intraepithelial neoplasm,

Appendix 3. Study reviewing association of cervical cancer stem cell (CSC) markers and prognosis of cervical cancer

No	Author	Region	Measurement methods	Number of cases	Number of control	Stage	CSC	Scoring measurement	Outcome assessed	Study design	Duration of follow up
1	Chopra et al., 2018	India	IHC	150	-	IB2-IVA	CD44, SOX2, OCT-4	The IHC score was reported on the basis of staining intensity. SOX-2/OCT-4 and Nanog expression was considered positive when localized to the nucleus, and CD44 was considered positive when the staining was membranous. The IHC was scored as follows: score 0 or negative: no staining; 1þ, weak staining; 2þ, moderate staining; 3þ, strong staining.	Locoregional relapse, distant metastasis	Prospective	3-51 months
2	Kim et al., 2015	Korea	IHC	161	289	IIA or less and IIB or higher	OCT4, SOX2	The staining intensity of OCT4 and SOX2 was categorized as 0 (no staining), 1+ (weak), 2+	DFS, OS	Cohort	5-years

								(moderate) and 3+ (strong). The overall immunohistochemical score (histoscore) was expressed as the percentage of positive cells multiplied by their staining intensity (possible range, 0–300).			
3	Hellberg et al., 2008	Sweden	IHC	68	59	IB-IV	CD44	The biopsies were evaluated by the external senior pathologist who was blinded for clinical details. A four-grade semi-quantitative score was used, where 0 was the absence of biomarker expression, 1 was the expression in 1–19% of cancer cells, 2 was 20–49%, and 3 was 50% or more cells with expression of the tumor marker.	OS	Prospective	10-years
4	Ayhan et al.,	Turkey	IHC	34	28	IB	CD44v6	As the staining	OS, DFS	Cohort	2-134

	2001							pattern was showing differences from tumor to tumor, three different evaluation patterns were performed: “general,” “basal,” and “non-basal.” Staining was judged as positive general (overall) staining when either more than 10% of the tumor cells showed strong membranous staining or more than 80% showed weak but unequivocal membranous staining.			months
5	Lambaudie et al., 2014	France	IHC	58	-	IB2-IV	CD44, ALDH1	CD44+CD24− profile was considered positive if strong complete membranous CD44 staining without any CD24 staining was observed. Expression of ALDH1, P63, CK7, and p-STAT3	PFS, OS	Prospective	46 months

								was considered positive if any degree of cytoplasmic staining was present in the tumor cell.			
6	Uhl-Steidl et al., 1998	Switzerland	IHC	88	31	I-IV	CD44	Immunohistochemical results were classified in subgroups of negative, weak, moderate, and strong staining. CD44 variant expression was evaluated by two independent observers.	OS, DFS	Retrospective	44 months
7	Speiser et al., 1999	Australia	IHC	38	199	IB	CD44v6	Staining was judged positive when either more than 10% of the tumor area showed strong membrane staining or more than 80% of the tumor area showed weak but unequivocal membrane staining. All others cases were judged as negative.	OS	Cohort	39-110 months
8	Kainz et al., 1995	Austria	IHC	105	-	IB-IIB	sCD44	Strong and/or	OS	Prospective	kNS

								widespread staining was interpreted as positive; weak and focal staining was regarded as negative.			
9	Speiser et al., 1997	Austria	IHC	200	-	IB	CD44v6	The sections were finally counterstained with hematoxylin and mounted. Staining was judged as positive when (1) more than 10% of the tumor area showed strong membrane staining or (2) more than 80% of the tumor area showed weak but unequivocal membrane staining. All other cases were judged as negative.	OS	Prospective	5-years
10	Yang Z et al., 2014	China	IHC	55	-	I-II	SOX2	The intensity of the staining was classified as strong (3), medium (2), weak (1), and negative (0) with the ratio of positive cells	DFS	Retrospective	46 months

								<10% scoring 0, 10-25% scoring 1, 25-50% scoring 2, 51-75% scoring 3, and > 75% scoring 4.			
11	Costa et al., 2001	Italy	IHC	56	-	Ib1 – IIa	CD44	CD44v6 expression observed at cell membranes was scored as a fraction of positive cancer cells in the whole tumor area, as either negative, weak, moderate, or strong,	RFS, OS	Prospective	OS 52.3 ± 25.3 months RFS 46.1 ± 27.8 months
12	Kainz et al., 1996	Austria	IHC	105	-	IB-IIB	CD44v6	Staining was judged as positive when (i) more than 20% of the tumor area showed strong membrane staining or (ii) more than 80% of the tumor area showed weak but unequivocal membrane staining. All other cases were judged as being negative.	OS	Prospective	51.7 months (3-8 years)
13	Ji et al., 2014	China	IHC	43	28	I-IV	SOX2,	For the evaluation of	OS	Cohort	12-34

							OCT4	IHC results, staining intensity (SI) was assessed as follows: 0, no staining; 1, weak staining; 2, modest staining; 3, strong staining. Likewise, the proportion of tumor cell staining (P) was evaluated by four grades: 0, < 10% positive tumor cells; 1, 10%-25% positive tumor cells; 2, 26%-50% positive tumor cells; 3, 51%-75% positive tumor cells; 4, > 75% positive tumor cells.			months
14	Shen et al., 2014	China	IHC	47	85	I-IVa	SOX2, OCT4	The scoring criteria used for staining intensity were: 0, no staining; 1, weak staining; 2, modest staining; and 3, strong staining. The final score was calculated	PFS	Cohort	5-years

								by multiplying the area of tumor staining by the intensity score (0, 1, 2, 3, 4, 6, and 9).			
15	Yang Y et al., 2014	China	IHC	630	-	0-II	OCT4	Positivity for Oct-4 protein was evaluated using semi-quantitative scoring criteria according to the proportion of positive cells (1, positive in <1/3 tumor cells; 2, positive in ≥1/3 and <2/3 tumor cells; and 3, positive in ≥2/3 tumor cells) and staining intensity (0, negative; 1, weak; 2, moderate; and 3, strong).	OS, PFS	Prospective	5-years
16	Yao et al., 2014	China	IHC	31	167	IB1-IIB	ALDH1	Immunohistochemical staining of ALDH1 was classified as negative (-, no staining), weakly positive (+, light-brown or yellow	DFS	Cohort	11-77 months

								cells) or positive (++, brown staining). For the purpose of the study, ‘positive’ staining included both weakly positive and positive staining.			
17	Lv et al., 2015	New York	IHC	74	-	IIb-IIIb	ALDH1	The intensity score was obtained for the average intensity of positive cells (0, none; 1, weak; 2, intermediate; and 3, strong). The proportion score was determined according to the proportion of positive cells (0, none; 1, B10 %; 2, 11–25 %; 3, 26–50 %; 4,[50 %). The final score for each case was calculated by adding the proportion and intensity scores and categorized as low (score 0–2) versus	DFS, OS	Prospective	6-15.5 months

								high (3–8) expression.			
18	Fu et al., 2018	Taiwan	IHC	139	-	IA-IB1	SOX2, ALDH1	Expression of SOX2 was graded as 0, less than 10% cells reactive; 1+, 10 to 25% cells reactive; 2+, 26 to 50% cells reactive; 3+, 51 to 75% cells reactive; and 4+, more than 75% cells reactive.. Expression of ALDH1A1 was graded as 3+ (≥50% positive tumor cells), 2+ (<50% but ≥10%), 1+ (<10%), or negative (0%).	DFS, OS	Prospective	2-113 months
19	Hou et al., 2015	China	IHC	54	217	IB1-IIB	Musashi-1, ALDH1, SOX2, CD49f	Intensity of stained cells was graded semi-quantitatively into four levels: 0 (no staining); 1 (weak staining = light yellow); 2 (moderate staining = yellow-brown) and 3 (strong	RFS, OS	Cohort	1.6-60.0 months

								staining = brown); and the percentage was scored as: 0, negative; 1, 10 % or less; 2, 11 % to 50 %; 3, 51 % to 80 %; or 4, 80 % or more positive cells. Intensity and fraction of positive cell scores were multiplied for each marker and thus, the scoring system was defined as a low expression for scores of 0–3, and as high expression for scores of 4–12.			
20	Xie et al., 2016	China	IHC	22	30	IB2-IIB	ALDH1	Immunostaining was evaluated using a scoring system for ALDH1 as follows: 0, negative staining in all tumor cells; 1+, weak positive or focal positive staining of ≦10 % cells; 2+, moderate positive	DFS, OS	Cohort	5-years

								staining of >10 to ≤50 % cells; 3+, strong positive staining of >50 % cells; ALDH1 expression was considered positive if the score was 2.			
21	Hashiguchi et al., 2019	Japan	IHC	76	52	IA-IV	CK17	Two pathologists evaluated the staining results independently. CK7, CK17, and podoplanin expressions were considered positive when there was immunoreaction in more than 10% of the tumor cells, as described in a previous study.	OS	Cohort	OP group 6-155 months, RC group 3-84 months
22	Ammothumkandy et al., 2016	India	Flow cytometry	131	22	Early and Late stage	CD49f	Using flow cytometry (not fully described)	OS, DFS	Cohort retrospective	7-years

Appendix 4. Study association of cervical cancer stem cell (CSC) markers with survival in cervical cancer

CSC	Study Author	Prognostic value						Cut off
		OS			DFS/PFS/RFS			
		Effect	Univariate analysis	Multivariate analysis	Effect	Univariate analysis	Multivariate analysis	
CD44	Chopra et al., 2018	-	-	-	CD44 low status predicted for locoregional relapse	*P* = 0.001	NS	2+ and low
	Hellberg et al., 2008	Expression of CD44 was not a statistically significant predictor in any of the two groups of the clinical-stage (*p* = 0.09 for both), but based on OR could in early-stage cancer be a candidate marker for	Stage IB-IIA OR 2.57 (95%CI: 0.84 – 7.96) *p* value 0.09 and Stage IIB-IV OR 0.37 (95%CI: 0.11 – 1.17) *p* value 0.09	-	-	-	-	CD44 ≥50% and <50%

		prediction of a favorable prognosis (OR 2.57) and in late stages of poor prognosis (OR 0.37).						
	Ayhan et al., 2001	Nonbasal CD44v6 expression was one of parameters that was independently correlated with survival.	*P* 0.005	RR 3.3 (95%CI: 1.2 – 8.8) *p* 0.01	-	*P* NS	-	Positive more than 10% of the tumor cells or more than 80% showed weak but unequivocal membranous staining.
	Uhl-Steidl etal., 1998	Patients with CD44 variant v4 positive tumors had a significantly longer disease-free and overall survival than	*P* = 0.005	-	Patients with CD44 variant v4 positive tumors had a significantly longer disease-free and overall survival than	*P* = 0.05	-	CD44v4 weak staining 85%

		patients with CD44 variant v4 negative tumors.			patients with CD44 variant v4 negative tumors.			
	Speiser et al., 1999	Univariate and multivariate analysis revealed a significant correlation between CD44v6 expression and poor OS.	RR 2.44 (95%CI: 1.16 – 5.14) *p* value 0.015	RR 0.021 (95%CI: 1.14 – 5.10) *p* value 0.021	-	-	-	> 10%
	Kainz et al., 1995	Patients suffering from tumor expressing splice variant CD44v6 had a significantly poorer OS.	-	*P* value 0.03	-	-	-	NR
	Speiser et al., 1997	Multivariate analysis correcting for the	*P* value 0.03	RR 2.1 (95% CI: 1.2 - 3.9) *P* value 0.04	-	-	-	>10%

		confounding variables pelvic lymph-node involvement, depth of cervical invasion, and histologic grading revealed CD44v6 to be an independent prognostic factor of OS.						
	Lambaudie et al., 2014	NR	NR	NR	NR	NR	NR	NR
	Costa et al., 2001		*P* value 0.0201	*P* value 0.013	-	*P* value 0.0321	-	NR
	Kainz et al., 1996	Overall survival was not significantly associated	$p = 0.1$, p 0.009, p 0.4, respectively	-	Splice variant CD44v6 had a poorer recurrence-free survival	*P* value 0.07	-	>10%

		with CD44v5, CD44v6, or CD44v7-8 expression.			but not associated significantly.			
SOX2	Chopra et al., 2018	-	-	-	-	*P* = NS	-	2+ and low
	Kim et al., 2015	SOX2 expression showed favorable overall survival.	*P* = 0.025	HR 0.22 (95%CI: 0.06 – 0.72) *p* value 0.013	SOX2 expression showed a favorable disease-free survival.	NR	HR 0.47 (95%CI: 0.18 – 1.20) *p* value 0.019	Histoscore >30
	Ji et al., 2014	Patients with Sox2 high expression had significantly worse overall survival.	*P* = 0.032	-	-	-	-	NR
	Shen et al., 2014	There was a significant difference in the overall survival rate between the two groups	*P* < 0.001	-	Expression of SOX2 was important predictor of poor survival.	*P* < 0.001	HR 2.294 (95%CI: 1.013 – 5.915) *p* value 0.046	>10%

		(SOX2 high and low).						
	Hou et al., 2015	SOX2 was associated with overall survival.	*P* = 0.005	HR 8.650 (95%CI: 1.141 – 65.603) *p* value 0.047	SOX2 was associated with relapse-free survival.	*P* = 0.003	HR 5.834 (95%CI: 1.353 – 0.470) *p* value 0.018	>10%
	Yang Z et al., 2014	-	-	-	The overall DFS rates with negative and positive expressions of Sox2 were not associated significantly.	*P* 0.360	-	>10%
	Fu et al., 2018	Patients with high ALDH1A1 expression had similar five-year OS and DFS with the low expression.	*P* 0.598	-	Patients with high ALDH1A1 expression had similar five-year OS and DFS with the low expression.	*P* 0.141	-	>10%
OCT4	Chopra et al., 2018	-	-	-	-	*P* = NS	-	2+ and low

	Kim et al., 2015	CT4 overexpression showed worse 5-year disease-free and overall survival rates.	*P* = 0.021	HR 11.23 (95%CI: 1.31 – 95.6) *p* value 0.027	CT4 overexpression showed worse 5-year disease-free and overall survival rates.	*P* = 0.012	HR 0.220 (95%CI: 0.006 – 0.7) *p* value 0.013	NR
	Ji et al., 2014	no significant correlation was observed between Oct4 expression and overall survival.	*P* > 0.05	-	-	-	-	NR
	Shen et al., 2014	There was a significant difference in the overall survival in the two groups.	*P* < 0.001	-	Expression of OCT4 was important predictor of poor survival.	*P* < 0.001	HR 2.300 (95%CI: 1.050 – 5.037) *p* value 0.037	>10%
	Yang Y et al., 2014	-	-	-	the survival rate was significantly different between Oct-4-positive	*P* = 0.001	OR 2.154 (95%CI: 1.815 – 3.623) *p* value 0.01	>+1

					patients and Oct-4-negative patients.			
ALDH1	Yao et al., 2014	-	-	-	Patients with ALDH1-positive tumors had significantly shorter disease-free survival.	$P < 0.05$	RR 2.727 (95%CI: 1.253 – 5.914) p <0.05	+1
	Lv et al., 2015	Patient overall survival was not associated with ALDH-1 expression.	P value 1.000	-	Patient disease-free survival was not associated with ALDH-1 expression.	P value 0.606	-	>26%
	Fu et al., 2018	The high expression of the ALDH1A1 group had similar five-year OS rates and DFS rates to the low	P value 0.591	-	The high expression of the ALDH1A1 group had similar five-year OS rates and DFS rates	P value 0.131	-	50%

		expression.			to the low expression.			
	Hou et al., 2015	ALDH1 was associated with overall survival.	*P* 0.015	HR 3.805 (95%CI: 1.331 – 10.879) *p* value 0.013	ALDH1 was associated with relapse-free survival.	*P* = 0.002	HR 4.261 (95%CI: 1.655 – 10.968) *p* value 0.003	>10%
	Xie et al., 2016	ALDH1 positive post NAC was significantly associated with OS.	*P* 0.009	HR 3.513 (95%CI: 1.109 – 11.250) *p* value 0.033	ALDH1 positive post NAC was not significantly associated with DFS.	*P* 0.009	HR 2.149 (95%CI: 0.524 – 8.812) *p* value 0.288	>10%
	Lambaudie et al., 2014	NR	NR	NR	NR	NR	NR	NR
Musashi-1	Hou et al., 2015	-	*P* = 0.033	NR	-	*P* = 0.033	NR	NR
CD49f	Hou et al., 2015	Low CD49f expression was associated with poor overall survival.	*P* = 0.027	HR 0.064 (95%CI 0.008 – 0.492) p value 0.008	Low CD49f expression associated with relapse-free survival.	*P* = 0.025	HR 0.108 (95%CI: 0.025 – 0.470) *p* value 0.003	>10%
	Ammothumkandy et al., 2016	CD49f was not significantly associated	HR 1.19 (95%CI: 1.576 – 5.264) *p* value 0.615	HR 1.288 (95%CI 0.627 – 2.644) *p* value 0.491	-	-	-	NR

		with overall survival						
CK17	Hashiguchi et al., 2019	CK17 was not significantly associated with overall survival.	HR 0.56 (95%CI: 0.25 – 1.18) *p* value 0.1	HR 0.64 (95%CI: 0.27 – 1.52) *p* value 0.3	-	-	-	>10%