

Table S1. The baseline characteristics of included studies and patients

Study	Country	Sample size (Malignant/Benign)	Age (years)	Type of ovarian cancer	Modality	Route/agent	US machine	TP	FP	FN	TN
Weiner 1992 [S1]	Israel	53 (17/36)	NA	NA	Doppler US	Transvaginal/none	SSD 680	16	1	1	35
Kurjak 1992 [S2]	Croatia	83 (29/54)	NA	NA	US	Transvaginal/none	SSD 680	14	1	15	53
					Doppler US	Transvaginal/none	SSD 680	28	3	1	51
Kurjak 1992 [S3]	Croatia	174 (38/136)	48.0	Pa (18), A (10), E (3), GrC (2), Me (5)	US	Transvaginal/none	SSD 680	35	7	3	129
					Doppler US	Transvaginal/none	SSD 680	37	0	1	136
Schneider 1993 [S4]	USA	55 (16/39)	67.0	NA	US	Both/none	Acuson 128	14	6	2	33
					Doppler US	Both/none	Acuson 128	15	16	1	23
Brown 1994 [S5]	USA	44 (8/36)	42.3	C (4), B (2), SCL (1), MMT (1)	Doppler US	Both/none	Acuson 128	8	19	0	17
Zanetta 1994 [S6]	Italy	80 (33/47)	NA	NA	US	Transvaginal/none	ATL Ultramark	25	0	8	47
					Doppler US	Transvaginal/none	ATL Ultramark	29	1	4	46
Levine 1994 [S7]	USA	35 (7/28)	42.0	NA	US	Transvaginal/none	Acuson 128	7	3	0	25
Jain 1994 [S8]	USA	50 (10/40)	43.0	NA	US	Transvaginal/none	Acuson 128	10	2	0	38
					Doppler US	Transvaginal/none	Acuson 128	8	6	2	34
Bromley 1994 [S9]	USA	33 (12/21)	NA	NA	US	Both/none	Acuson 128	8	4	4	17
					Doppler US	Both/none	Acuson 128	7	10	1	11
Salem 1994 [S10]	Canada	102 (13/89)	NA	P (10), Me (3)	Doppler US	Transvaginal/none	Acuson 128	10	17	3	65
Wu 1994 [S11]	China	228 (76/152)	41.3	Ep (34), GC (6), Me (18), B (6), others (4)	Doppler US	Transvaginal/none	SSD680	72	29	4	123
Chou 1994 [S12]	China	108 (25/83)	38.0	S (10), M (3), E (2), CC (1), ES (3), IT (1), Me (5)	Doppler US	Transvaginal/none	SSD680	22	7	3	76
Franchi 1995 [S13]	Italy	129 (37/92)	44.0	B (7), S (19), M (2), other (9)	US	Both/none	Au450	31	15	6	77
					Doppler US	Both/none	Au450	28	26	9	66
Stein 1995 [S14]	USA	169 (46/123)	39.4	NA	US	Both/none	NA	35	38	11	85
					Doppler US	Both/none	NA	45	47	1	76

Tepper 1995 [S15]	Israel	203 (38/165)	44.3	S (19), M (6), E (2), GrC (3), MT (2), SCS (1), U (3), stromal (1), GC (1)	Doppler US	Transvaginal/none	SSD680	38	43	0	122
Taylor 1996 [S16]	UK	51 (9/42)	44.5	M (1), S (2), E (1), CC (3), Pa (1), GrC (1)	Doppler US	Transvaginal/none	Acuson 128	9	9	0	33
Prompeler 1996 [S17]	Germany	212 (68/144)	60.5	P (50), T (2), Me (5), GrC (1), ES (1), LMP (9)	Doppler US	Transvaginal/none	ATL Ultramark	67	19	1	125
Rehn 1996 [S18]	Germany	310 (51/259)	43.5	P (45), Me (6)	US	Transvaginal/none	Acuson 128	46	91	5	168
					Doppler US	Transvaginal/none	Acuson 128	43	70	8	189
Caruso 1996 [S19]	Italy	122 (21/101)	38.4	A (13), S (4), M (1), Pa (3)	US	Transvaginal/none	Au570	21	25	0	76
					Doppler US	Transvaginal/none	Au570	21	4	0	97
Anandakumar 1996 [S20]	Singapore	156 (34/122)	36.7	NA	Doppler US	Transvaginal/none	Acuson 128	26	39	8	83
Matthes 1996 [S21]	Brazil	43 (10/33)	45.7	NA	US	NA	NA	8	7	2	26
Komatsu 1996 [S22]	Japan	82 (34/48)	45.9	NA	US	Transvaginal/none	Acuson 128	33	26	1	22
Buy 1996 [S23]	France	132 (34/98)	43.5	NA	US	Transvaginal/none	ATL Ultramark	30	3	4	95
					Doppler US	Transvaginal/none	ATL Ultramark	27	18	7	80
Strigini 1996 [S24]	Italy	128 (19/109)	43.0	NA	US	Transvaginal/none	Au590	16	6	3	103
					Doppler US	Transvaginal/none	Au590	16	28	3	81
Taylor 1997 [S25]	UK	64 (12/52)	45.3	NA	Doppler US	Transvaginal/none	Acuson 128	12	10	0	42
Valentin 1997 [S26]	Sweden	151 (24/127)	NA	NA	US	Transvaginal/none	Acuson 128	24	77	0	50
Reles 1997 [S27]	Germany	98 (29/69)	NA	B (4), P (18), other (7)	US	Transvaginal/none	Acuson 128	26	11	3	58
					Doppler US	Transvaginal/none	Acuson 128	26	18	1	51
Yang 1998 [S28]	China	69 (7/62)	39.0	B (6), E (1)	US	Transvaginal/none	HDI 3000	6	3	1	59
Buckshee 1998 [S29]	India	36 (9/27)	NA	Ep (8), IT (1)	US	Transvaginal/none	Sonoline Versa	9	4	0	23
					Doppler US	Transvaginal/none	Sonoline Versa	6	1	3	26

Emoto 1998 [S30]	Japan	143 (43/100)	44.4	B (12), P (31)	Doppler US	Transvaginal/none	SSD 680	39	53	4	47
Alcazar 1999 [S31]	Spain	167 (42/125)	45.7	P (30), LMP (6), Me (6)	Doppler US	Transvaginal/none	Philips P-700 SE	40	72	2	53
Schelling 2000	Germany	257 (39/218)	NA	LMP (4), S (23), M (5), E (2), GrC (2), other (3)	US	Transvaginal/none	Sonoline Elegra	38	41	1	177
[S32]		63 (22/41)	NA	LMP (4), S (11), M (1), U (2), CC (1), E (1), other (2)	US	Transvaginal/none	Sonoline Elegra	21	13	1	28
					Doppler US	Transvaginal/none	Sonoline Elegra	21	4	1	37
Kupescic 2000 [S33]	Croatia	45 (12/33)	49.7	NA	CEUS	Transvaginal/Levovist	Voluson 530	12	2	0	31
Wanapirak 2001	Thailand	185 (65/120)	44.8	NA	US	Transabdominal/none	Aloka 5000	55	36	10	84
[S34]											
Guerriero 2001	Italy	328 (71/257)	42.0	S (37), M (9), E (8), CC (2), U (4)	US	Transvaginal/none	Acuson 128	71	47	0	211
[S35]					Doppler US	Transvaginal/none	Acuson 128	71	18	0	239
	Spain	328 (70/258)	44.0	S (39), M (11), E (5), CC (1), U (6)	US	Transvaginal/none	SSA 370	66	44	4	214
					Doppler US	Transvaginal/none	SSA 370	61	13	9	245
Kurjak 2001 [S36]	Croatia	251 (30/221)	54.0	S (17), M (9), YS (1), GrC (1), FT (2)	CEUS	Transvaginal/Levovist	Voluson 530	30	2	0	219
					Doppler US	Transvaginal/none	Voluson 530/SSD 2000	56	8	4	434
					US	Transvaginal/none	SSD 2000	50	20	10	422
Marret 2002 [S37]	France	124 (12/112)	42.1	NA	Doppler US	Transvaginal/none	Catana 5	11	34	1	78
Guerriero 2002	Italy	826 (147/679)	40.0	NA	US	Transvaginal/none	SSA 370	146	109	1	570
[S38]					Doppler US	Transvaginal/none	SSA 370	140	41	7	638
Alcazar 2003 [S39]	Spain	44 (21/23)	49.3	NA	Doppler US	Transvaginal/none	SSA 370	40	14	2	32
Ueland 2003 [S40]	USA	442 (53/389)	50.0	NA	US	Transvaginal/none	GE Logiq	52	75	1	314
Itakura 2003 [S41]	Japan	95 (31/64)	49.2	S (10), M (3), CC (4), E (2), U (2), Un (1), Me (1), GrC (2), S-B (3), tubal (3)	Doppler US	Transvaginal/none	Logiq 500	28	17	3	47
Gu 2003 [S42]	China	19 (12/7)	42.2	NA	CEUS	Transvaginal/Levovist	ATL Ultramark	12	2	0	5
Orden 2003 [S43]	Finland	66 (14/52)	49.4	U-solid (1), M-solid (7), solid (6)	CEUS	Transvaginal/Levovist	Sequoia 512	13	4	1	48
D'Arcy 2004 [S44]	UK	20 (4/16)	49.0	NA	CEUS	Transvaginal/Levovist	Sequoia 512	4	1	0	15
Marret 2004 [S45]	France	101 (23/78)	46.2	NA	CEUS	Transvaginal/Levovist	MPX	22	2	1	76

Alcazar 2005 [S46]	Spain	69 (45/24)	48.4	P (30), LMP (4), Me (11)	Doppler US	Transvaginal/none	SonoAce SA-9900	88	8	2	40
Marret 2005 [S47]	France	101 (23/78)	46.2	P (21), B (2)	Doppler US	Transvaginal/none	MPX	23	2	0	76
Erdogan 2005 [S48]	Turkey	63 (21/42)	48.2	NA	Doppler US	Transabdominal/none	PowerVision 6000	21	2	0	40
Testa 2007 [S49]	Belgium	33 (9/24)	41.0	NA	CEUS	Transvaginal/SonoVue	MPX	9	14	0	10
					Doppler US	Transvaginal/none	MPX	9	8	0	16
Testa 2009 [S50]	Italy	89 (37/52)	50.0	B (10), Ep (17), non-Ep (3), tubal (3), Me (4)	CEUS	Transvaginal/SonoVue	MPX	37	13	0	39
					Doppler US	Transvaginal/none	MPX	35	29	2	23
Fleischer 2009 [S51]	USA	36 (10/26)	48.3	S (5), E (2), Me (2), B-M (1)	CEUS	Transvaginal/Definity	iU22	10	1	0	25
Zhou 2009 [S52]	China	65 (30/35)	46.6	NA	US	Transabdominal/none	GE Logiq7	29	1	1	34
					Doppler US	Transabdominal/none	GE Logiq7	22	5	8	30
Veyer 2010 [S53]	France	42 (12/30)	49.7	S (3), CC (3), Me (2), E (2), ES (1), other (1)	CEUS	Transvaginal/SonoVue	MTX	10	8	2	22
Hassan 2011 [S54]	China	52 (22/30)	45.0	NA	CEUS	Transvaginal/SonoVue	GE Logiq	22	5	0	25
Zheng 2011 [S55]	China	36 (14/22)	41.0	NA	CEUS	Transabdominal/SonoVue	GE Logiq	14	2	0	22
Huchon 2012 [S56]	France	99 (11/88)	45.8	U (1), U-solid (2), M (2), M-solid (6)	US	Transvaginal/none	ATL HDI 5000	6	5	5	83
					CEUS	Transvaginal/Levovist	Voluson 730	9	9	2	79
Wang 2012 [S57]	China	49 (20/29)	NA	NA	CEUS	Transabdominal/SonoVue	Philips iU22	20	1	0	28
Hafeez 2013 [S58]	Pakistan	78 (42/36)	NA	NA	US	Transabdominal/none	NEMIO XG	38	2	4	34
Kalmantis 2013 [S59]	Greece	318 (93/225)	47.4	NA	Doppler US	Transvaginal/none	Voluson 730	87	16	6	209
Perez-Medina 2013 [S60]	Spain	72 (41/31)	53.2	NA	Doppler US	Transvaginal/none	Voluson 730	35	6	6	25
Shah 2013 [S61]	India	84 (40/44)	NA	NA	US	Transabdominal/none	NEMIO XG	35	24	5	20
					Doppler US	Transabdominal/none	NEMIO XG	39	14	1	30
Xiang 2013 [S62]	China	51 (8/43)	46.5	NA	CEUS	Transvaginal/SonoVue	MyLab90	8	1	0	42

Zhang 2013 [S63]	China	48 (25/23)	48.3	NA	CEUS	Transabdominal/SonoVue	GE Logiq	24	1	1	22
					Doppler US	Transvaginal/none	GE Logiq	22	3	3	20
Yang 2013 [S64]	China	106 (75/31)	44.4	NA	US	Transabdominal/none	Philips iU22	69	10	6	21
					CEUS	Transabdominal/SonoVue	Philips iU22	70	3	5	28
Abbas 2014 [S65]	Egypt	161 (46/115)	35.2	NA	Doppler US	Both/none	SonoAce X8	37	18	9	97
Zhang 2014 [S66]	China	120 (48/72)	39.6	C (27), Me (4), IT (4), CC (2), E (2), SC (1), ES (1), B (7)	CEUS	Transabdominal/SonoVue	Sequoia 512	43	2	5	70
Hu 2014 [S67]	China	57 (10/47)	NA	GrC (2), A (1), B-S (1), Re (2), SLC (1), tubal S (3)	CEUS	Transvaginal/SonoVue	MyLab90	10	15	0	32
Utrilla-Layna 2015 [S68]	Spain	367 (86/281)	45.8	B (4), P-Ep (61), P non-Ep (4), Me (16), R (1)	Doppler US	Transvaginal/none	Voluson 730	84	60	2	221
Zhang 2015 [S69]	China	102 (37/65)	37.2	NA	US	Transvaginal/none	Acuson 512	29	3	8	62
					Doppler US	Transvaginal/none	Acuson 512	23	9	11	59
Tongsong 2016 [S70]	Thailand	150 (45/105)	43.0	B (9), CC (8), M (6), E (7), S (5), Me (3), SCS (2), other (5)	US	Both	NA	39	6	6	99
Paul 2017 [S71]	Bangladesh	43 (24/19)	37.7	NA	Doppler US	NA	NA	22	2	2	17
Al-Asadi 2018 [S72]	Iraq	101 (21/80)	41.4	M (6), S (5), K (3), L (2), CC (2), GC (2), E (1)	US	Transabdominal/none	NA	20	20	1	60

\*A: adenocarcinoma; B: borderline; P: primary; GC: Germ cell; GrC: Granular cell; E: endometrial; CC: clear cell; M: mucinous; Me: metastatic; S: serous; K: Krukenberg; L: Leiomyosarcoma; SCS: sex cord stromal; R: retroperitoneal; SLC: Sertoli-Leydig cell; Re: recurrence; C: Cystadenocarcinoma; IT: immature teratoma; SC: squamous cell; ES: endodermal sinus; U: Unilocular; M: multilocular; Ep: epithelial; LMP: low malignant potential; U: undifferentiated; Un: unclassified; YS: Yolk sac; FT: fallopian tube; Pa: papillary; MT: malignant teratoma; MMT: mullerian mixed tumor; TP: true positive; FP: false positive; FN: false negative; TN: true negative

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