

Table SI. Reported cases of breast cancer with synchronous metastasis to the uterine cervix.

First author/s, year	Age, years	Menstrual status	Histological type	ER	PR	HER-2	Lymph node metastasis (A/B)	Treatment (P)	P/M Interval, months	Clinical presentation	Hysteroscopy	Cervical cytology	Cervical biopsy	Histological type (M)	Diagnostic methods	Treatment (M)	M	Survival time, months	(Ref.)
Song, 1963	45	Pre	NR	NR	NR	NR	+(8/32)	Surgey	Gyn	AVB AVD Abdominal discomfort	Sclerosis	+	NR	NR	NR	RT	FGT	6+	(11)
Song, 1963	49	Pre	IDC	NR	NR	NR	+	Refuse treatment	Gyn	AVB	Sclerosis	-	+	IDC	NR	Refuse treatment	N	4	(11)
Song, 1963	51	Pre	NR	NR	NR	NR	NR	Surgey + RT	48	AVB	Sclerosis	+	+	NR	NR	Refuse treatment	Yes	4	(11)

																ment			
Cohan and Kaplan, 1984	74	Post	IDC	+	NR	NR	+(1/10)	Surge ry + RT	12	AVB	Stenosis	No	No	NR	No	Surge ry	Yes	11+	(12)
Yazigi et al, 1988	38	Pre	IDC	NR	NR	NR	NR	NR	0	NR	Firm and friable	-	+	NR	NR	Surge ry	Yes	16	(13)
Yazigi et al, 1988	49	NR	L:IDC R:ILC	NR	NR	NR	NR	Surge ry + RT	Gyn sympt oms first	No	Erosion	NR	+	NR	NR	Surge ry	Yes	14	(13)
Yazigi et al, 1988	46	NR	L:IDC R:IDC	NR	NR	NR	+(2/9)	Surge ry + RT	42	AVB	No	NR	+	NR	NR	No	Yes	2	(13)
Mallow et al, 1997	42	Pre	ILC	+	+	NR	+(7/11)	Surge ry + CT	36	Ascites	NR	+	+	NR	No	Surge ry	Yes	36	(14)
Kennebec and Alagoz,	71	Post	IDC	-	-	-	+(1/12)	Surge ry + TAM	24	No	Cervical mass	NR	+	NR	Pelvic CT shows no	RT	No	NR	(15)

1998															cervical abnorm ality.				
Piura <i>et al</i> , 1999	58	Post	IDC	+	-	-	+	Surge ry + RT + CT + TAM	36	AVB	NR	No	No	HR(+)	Pelvic CT shows no cervical abnorm ality.	Surge ry + RT	F G T	NR	(16)
Bryson <i>et al</i> , 1999	47	Post	IDC	+	NR	-	-	Surge ry + TAM	17	No	Sclerosis	+	+	NR	Pelvic CT shows no cervical abnorm ality.	Surge ry + RT	N o	48+	(2)
Hepp <i>et al</i> , 1999	55	Pre	ILC	+	-	-	+	Surge ry + CT	Gyn sympt oms first	AVB Abdom inal discom fort	Cervical mass	NR	+	ILC	Pelvic CT shows cervical abnorm	Surge ry	Yes	NR	(5)

															ality.				
Pam bucci an <i>et</i> <i>al</i> , 2000	50	NR	ILC	+	+	+	NR	Surge ry	Gyn sympt oms first	Abdom inal discom fort ascites	No	+	NR	ILC HR(+)	Pelvic CT shows cervical abnorm ality.	Surge ry	Y es	NR	(17)
Paue r <i>et</i> <i>al</i> , 2003	40	NR	IDC	+	+	-	-	Surge ry + RT + CT	28	No	Cervical mass	NR	+	HR(+)	No	No	Y es	9	(18)
Ogin o <i>et</i> <i>al</i> , 2003	49	NR	ILC	-	+	-	-	Surge ry + RT + CT + ET + TAM	128	AVB	Cervical mass	+	+	HR(+)	Pelvic CT shows cervical abnorm ality.	Surge ry	Y es	8	(19)
Leho czky <i>et al</i> , 2003	52	NR	ILC IDC	+	N R	-	-	Surge ry	48	AVB Abdom inal discom fort	NR	NR	+	HR(+)	NR	NR	Y es	16	(20)

Rau <i>et al</i> , 2003	55	Post	ILC	N R	N R	NR	+	Surge ry + RT + CT + TAM	48	Abdom inal discom fort	Cervical mass	+	+	NR	No	Refus e treat ment	N R	NR	(21)
Gree n <i>et</i> <i>al</i> , 2004	43	NR	IDC	N R	N R	NR	NR	Surge ry + RT + CT	3	AVB	No	+	+	IDC	No	Surge ry	F G T	21+	(22)
Fam oriyo <i>et al</i> , 2004	78	Post	NR	N R	N R	NR	NR	TAM	NR	AVB	Cervical mass	NR	+	ILC	No	No	N R	NR	(23)
Gree n <i>et</i> <i>al</i> , 2005	43	NR	IDC	N R	N R	NR	NR	NR	NR	AVB	NR	NR	+	NR	No	Surge ry	N o	Aliv e at the time of repo rt	(24)
Haji <i>et al</i> , 2005	50	Post	ILC	N R	N R	NR	NR	NR	Gyn sympt oms	AVB	Sclerosi s	+	+	ILC	No	No	Y es	NR	(25)

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Lee <i>et al</i> , 2005	78	Post	ILC	+	N R	NR	+	Surge ry + RT + CT + TAM	21	No CA153 ↑	No	+	+	ILC	Pelvic CT shows no cervical abnorm ality.	Surge ry	F G T	NR	(26)
Agra wal <i>et</i> <i>al</i> ,20 06	51	NR	ILC	+	N R	NR	+	Surge ry + CT + TAM	48	No	NR	+	+	ILC HR(+)	No	No	N o	NR	(27)
Erka nli <i>et</i> <i>al</i> , 2006	63	Post	ILC IDC	+	+	+	+	Surge ry + RT + ET	6	No CA153 ↑	NR	NR	NR	ILC HR(+)	NR	Surge ry	F G T	0.5+	(28)
Mou savi <i>et al</i> , 2007	56	Post	IDC	+	N R	-	NR	Surge ry + RT + CT + ET	60	AVB	Cervical mass	+	+	HR(+)	No	Surge ry	N o	24+	(7)

Perisic <i>et al</i> , 2007	65	Post	ILC	+	+	-	+	Surge ry + RT + CT + TAM	52	No	NR	NR	+	NR	NR	Surge ry	N o	20	(29)
Manici <i>et al</i> , 2008	41	NR	ILC	+	+	-	-	Surge ry + ET	132	No CA153 ↑ TPA↑	Cervical mass	-	+	ILC HR(+)	PET-C T shows no cervical abnorm ality.	Surge ry	N o	20+	(30)
Ustaalioglu <i>et al</i> , 2009	56	Post	ILC	+	+	-	+	Surge ry + RT + CT + ET	36	AVB	NR	-	NR	HR(+)	No	Surge ry	F G T	9+	(31)
Bogliolo <i>et al</i> , 2010	78	Post	ILC	+	+	-	+	Surge ry + RT + CT + ET	0	No	Cervical enlarge ment	-	+	HR(+)	Pelvic CT shows cervical abnorm	No	N o	^ 30	(32)

															ality.				
D'So uza <i>et al</i> , 2010	44	NR	ILC	N R	N R	NR	NR	NR	Gyn sympt oms first	AVB	Sclerosi s	+	+	ILC	PET-C T shows cervical abnorm ality.	NR	Y es	NR	(33)
Hori kawa <i>et al</i> , 2012	52	NR	ILC	+	+	-	+	Surge ry + ET	Gyn sympt oms first	Abdom inal discom fort Pollaki uria	Cervical mass	-	NR	ILC HR(+)	Pelvic CT shows cervical abnorm ality.	Surge ry	N o	NR	(34)
Benk errou m <i>et</i> <i>al</i> ,20 14	48	Pre	L:IDC R:ILC	+	+	+	NR	CT	Gyn sympt oms first	AVB	Cervical mass	NR	+	ILC HR(+)	Pelvic CT shows cervical abnorm ality.	Surge ry	Y es	27	(35)
Wak s <i>et</i> <i>al</i> ,	53	Post	ILC	+	+	-	+	Surge ry +	180	AVB	Cervical mass	NR	+	HR(+)	PET-C T	No	Y es	NR	(36)

2015								RT + CT							shows cervical abnorm ality.				
Loka dasa n <i>et</i> <i>al</i> , 2015	49	Pre	ILC	+	+	-	+	CT + ET	Gyn sympt oms first	AVB	Cervical enlarge ment	NR	NR	ILC	No	Surge ry	F G T	NR	(3)
Loka dasa n <i>et</i> <i>al</i> , 2015	49	NR	ILC	+	+	-	+(11/16)	Surge ry + RT + CT + TAM	48	Abdom inal discom fort	Cervical mass	NR	+	HR(+) ILC	Pelvic CT shows no cervical abnorm ality.	No	F G T	NR	(3)
Proe nça <i>et al</i> , 2016	58	NR	IDC	+	+	-	+	NT+ Surge ry + RT + TAM	24	No	Cervical enlarge ment	+	+	HR(+)	Pelvic MRI shows cervical abnorm ality.	No	N o	9	(37)

Proença <i>et al</i> , 2016	77	Post	ILC	+	+	-	NR	RT + CT + ET	36	No	Sclerosis	+	+	NR	NR	No	Yes	6	(37)
Parilla <i>et al</i> , 2017	68	Post	ILC	NR	NR	NR	NR	NR	36	AVB	Sclerosis	NR	+	HR(+)	Pelvic MRI shows cervical abnormality.	No	Yes	NR	(38)
Raziana <i>et al</i> , 2017	58	Post	ILC IDC	NR	NR	+	NR	Surge ry + RT + CT + ET	108	AVB	Cervical mass	-	NR	ILC HER-2 (+)	PET-CT shows no cervical abnormality.	Surge ry	F G T	24+	(39)
Seo <i>et al</i> , 2017	46	NR	ILC	+	+	+	-	NT + Surge ry + RT + CT +	24	AVB Anemia	Cervical mass	NR	NR	HR(+)	Pelvic ultrasound shows cervical	Surge ry	F G T	0.5+	(40)

								ET							abnorm ality.				
Akhtar <i>et al</i> , 2017	62	Post	ILC	+	+	+	+	Refuse treatm ent	0	No	No	+	No	HR(+)	Pelvic CT shows no cervical abnorm ality.	No	F G T	NR	(41)
Thouvenot <i>et al</i> , 2018	84	Post	IDC	+	NR	-	-	Surge ry + ET	24	AVB Anemia	NR	NR	+	TNBC	Pelvic CT and PET-C T show no cervical abnorm ality.	No	Yes	7	(42)
Abdalla <i>et al</i> , 2018	32	NR	IDC	-	-	+	+	Surge ry + RT + CT	NR	AVB	Cervical mass	NR	+	HER-2 (+)	Pelvic CT shows cervical abnorm	No	Yes	NR	(43)

															ality.				
Fonti nele <i>et al</i> , 2019	57	NR	ILC	+	+	-	+	NT + Surge ry + RT + TAM	39	AVB	Sclerosi s	NR	+	HR(+) ILC	Pelvic CT shows no cervical abnorm ality.	Surge ry	F G T	0.5+	(44)
Abda llah <i>et al</i> , 2020	59	Post	ILC	+	+	-	+	CT + ET	Gyn sympt oms first	Abdom inal discom fort	Cervical mass	No	No	HR(+)	No	No	Y es	NR	(45)
Coch rane <i>et al</i> , 2020	62	Post	IDC	+	+	-	NR	Surge ry + CT + ET	120	AVB AVD	No	NR	- Subse quent surger y confir med metast atic carcin	HR(+)	Pelvic MRI shows no cervical abnorm ality.	Surge ry	N o	NR	(46)

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Lim <i>et al,</i> 2021	57	NR	L:ILC R:ILC	L : + R : +	L : + R : +	L:- R:-	+	L: Surge ry + RT + CT + TAM R: Surge ry	24	AVB	NR	NR	NR	HR(+)	Pelvic CT shows no cervical abnorm ality.	Surge ry	F G T	NR	(47)
Yuan <i>et al,</i> 2021	64	Post	ILC IDC	+	NR	NR	NR	Surge ry + RT + CET	216	No	NR	+	+	HR(+)	No	No	Y es	Aliv e at the time of repo rt	(48)
Kon <i>g et</i> <i>al,</i> 2022	64	Post	ILC	+	-	-	+	Surge ry + RT + CET	29 (35/3 8)	No	NR	NR	NR	HR(+)	PET-C T shows no cervical	Surge ry	Y es	20	(49)

															abnorm ality.				
Nadiyaha nimu <i>et al,</i> 2024	60	Post	NR	N R	N R	NR	NR	No	Gyn sympt oms first	Abdom inal discom fort	NR	NR	+	NR	Pelvic CT shows no cervical abnorm ality. Pelvic MRI shows cervical abnorm ality.	No	Y es	9	(50)
Wan g and Wei, 2024	68	Post	IDC	N R	N R	+	+(11/1 5)	Surge ry + CT	36	AVB Abdom inal discom fort	NR	NR	+	TNBC	Pelvic MRI shows cervical abnorm ality.	No	Y es	18+	(1)
Boud	38	Pre	IDC	L	L	L:+	L:+	NT +	15	AVB	NR	NR	NR	NR	Pelvic	No	Y	2	(51)

agh <i>et al,</i> 2024				:	:	R:+	R:+	RT +		Anemi a					CT shows cervical abnorm ality.		es		
Zhan <i>g et</i> <i>al,</i> 2024	64	Post	IDC	R	R	R:- L+	R:- L:+ (35/3 5)	Surge ry + RT + ET + CT	53 21	AVD	Cervical mass	NR	+	HR(+)	NR	RT	Y es	4	(6)
Fara <i>z et</i> <i>al,</i> 2024	65	Post	ILC	+	+	-	-	Surge ry + RT + CT + TAM	24	AVB	NR	NR	+	HR(+)	No	Surge ry + RT	F G T	30+	(52)
Shan <i>et al,</i> 2025	40	NR	ILC IDC	+	+	-	+ (10/1 0)	Surge ry + RT + CT + ET	83	No	NR	+	+	ILC HR(+)	PET-C T shows cervical abnorm ality.	Surge ry	Y es	35+	(53)

Pellecchia <i>et al</i> , 2026	60	Post	ILC	+	+	-	+	Surge ry + CT + ET	120	AVB	Cervical mass	-	+	ILC HR(+)	PET-CT shows cervical abnormality.	No	Yes	72+	(4)
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Pre, premenopausal; post, postmenopausal; AVB, abnormal vaginal bleeding; AVD, abnormal vaginal discharge; ; CT, chemotherapy; RT, radiotherapy; NT, neoadjuvant therapy; TAM, tamoxifen; ET, endocrine therapy; N, axillary lymph node involvement; M, presence of other sites of distant metastases, histological type, FGT; female genital tract; Gyn, gynecology; ILC, invasive lobular carcinoma; IDC, invasive ductal carcinomas; ER, estrogen receptor; PR, progesterone; TPA, tissue polypeptide antigen; CA, cancer antigen; L, left; R, right; NR, not reported; TNBC ,Triple-negative breast cancer; Lymph node metastasis (A/B) , A out of B lymph nodes were found to have breast cancer metastasis; Treatment(P), Treatment of the primary site; Treatment(M), Treatment of metastatic sites.