continued

Institution
Showa Inan General Hospital
Showa University Fujigaoka Hospital
Showa University Hospital
Social Insurance Omuta Tenryo Hospitak
Social Insurance Tagawa Hospital
Social Insurance Yokohama Central Hospital
Sonoda Daiichi Hospital
Southern Region Hospital
Sugita Genpaku Memorial Obama Municipal Hospital
Suita Municipal Hospital
Syowa University Toyosu Hospital
Tachikawa Hospital
Takaoka Hospital
Takasago Municipal Hospital
Teikyo University School of Medicine Hospital, Mizonokuchi
Toho University Omori Medical Center
Tohoku Kosai Hospital
Tokai University Hospital
Tokushima Red Cross Hospital
Tokushima University Hospital
Tokyo Dental College Ichikawa General Hospital
Tokyo Jikeikai Medical
Tokyo Medical and Dental University Hospital
Tokyo Medical University Kasumigaura Hospital
Tokyo Metropolitan Cancer and Infectious Center Komagome Hospital
Tokyo Women's Medical University Hospital

continued

Institution
Tokyo Women's Medical University Medical Center East
Toranomon Hospital
Tottori Prefectural Central Hospital
Tottori University Hospital
Toyama Prefectual Central Hospital
Toyama University Hospital
Tsuchiura Kyodo Hospital
Tsukuba University Hospital
Tsuruoka Municipal Shonai Hospital
University of Fukui Hospital
University of Miyazaki Hospital
University of Occupational and Environmental Health
University of the Ryukyu Hospital
Wakayama Kenritsu University Hospital
Yamagata Prefectural Central Hospital
Yamagata Prefectural Shinjo Hospital
Yamagata University Hospital
Yamagata University Hospital
Yamanashi Prefectural Central Hospital
Yamanashi University Hospital
Yao Municipal Hospital
Yokohama City University Hospital
Yokohama City University Medical Center
Yokohama Rosai Hospital
Yuri General Hospital

Patient Background

Table 1 Age and gender

*** Excluding 39 missing cases of gender**

Age	Male	Female	Unknown	Cases (%)	
~29	3	1	0	4	(0.1%)
30~39	10	5	0	15	(0.3%)
40~49	138	26	2	166	(3.7%)
50~59	841	145	0	986	(21.8%)
60~69	1511	187	0	1698	(37.5%)
70~79	1227	193	0	1420	(31.4%)
80~89	151	46	0	197	(4.4%)
90~	31	9	0	40	(0.9%)
Total	3912	612	2	4526	
Missing	78	16	0	94	

Table 12 Tumor location

*** Excluding 185 treatment unknown, missing cases of treatment types**

Location of tumor	Endoscopic treatment (%)		Chemotherapy and/or radiotherapy (%)		Surgery				Total (%)	
					Palliative operation (%)		Esophagectomy (%)			
Cervical	14	(2.7%)	98	(7.5%)	3	(2.6%)	74	(3.0%)	189	(4.3%)
Upper thoracic	55	(10.7%)	200	(15.3%)	16	(13.9%)	268	(10.8%)	539	(12.2%)
Middle thoracic	289	(56.1%)	650	(49.8%)	59	(51.3%)	1146	(46.2%)	2144	(48.6%)
Lower thoracic	118	(22.9%)	266	(20.4%)	26	(22.6%)	792	(31.9%)	1202	(27.2%)
Abdominal	15	(2.9%)	31	(2.4%)	9	(7.8%)	152	(6.1%)	207	(4.7%)
EG	3	(0.6%)	3	(0.2%)	0		18	(0.7%)	24	(0.5%)
EG-Junction(E=G)	1	(0.2%)	0		1	(0.9%)	19	(0.8%)	21	(0.5%)
Cardia (G)	1	(0.2%)	0		0		3	(0.1%)	4	(0.1%)
Others	0		0		0		0		0	
Unknown	19	(3.7%)	57	(4.4%)	1	(0.9%)	8	(0.3%)	85	(1.9%)
Total	515		1305		115		2480		4415	
Missing	13		7		0		23		43	

EG: esophago-gastric

Table 15 Histologic types of cancer according to biopsy specimens

*** Excluding 185 treatment unknown, missing cases of treatment types**

Histologic types	Endoscopic treatment (%)		Chemotherapy and/or radiotherapy (%)		Surgery				Total (%)	
					Palliative operation (%)		Esophagectomy (%)			
Not examined	5	(1.0%)	8	(0.6%)	1	(0.9%)	5	(0.2%)	19	(0.4%)
SCC	480	(92.5%)	1218	(93.4%)	106	(92.2%)	2225	(91.5%)	4029	(92.2%)
SCC	379	(73.0%)	833	(63.9%)	72	(62.6%)	1355	(55.7%)	2639	(60.4%)
Well diff.	22	(4.2%)	72	(5.5%)	5	(5.0%)	203	(8.3%)	302	(6.9%)
Moderately diff.	66	(12.7%)	208	(16.0%)	21	(18.3%)	494	(20.3%)	789	(18.1%)
Poorly diff.	13	(2.5%)	105	(8.1%)	8	(7.0%)	173	(7.1%)	299	(6.8%)
Adenocarcinoma	16	(3.1%)	7	(0.5%)	3	(2.6%)	103	(4.2%)	129	(3.0%)
Undifferentiated	1	(0.2%)	14	(1.1%)	1	(0.9%)	10	(0.4%)	26	(0.6%)
Carcinosarcoma	0		2	(0.2%)	0		8	(0.3%)	10	(0.2%)
Malignant melanoma	2	(0.4%)	0		0		8	(0.3%)	10	(0.2%)
Other tumors	2	(0.4%)	16	(1.2%)	1	(0.9%)	21	(0.9%)	40	(0.9%)
Dysplasia	0		0		0		0		0	
Unknown	13	(2.5%)	39	(3.0%)	3	(2.6%)	53	(2.2%)	108	(2.5%)
Total	519		1304		115		2433		4371	
Missing	12		13		1		77		103	

SCC: squamous cell carcinoma

Table 19 Organs with metastasis in cM1 case (JSED-cTNM 9th)

*** Excluding 185 treatment unknown, missing cases of treatment types**

Metastatic organs	Endoscopic treatment (%)		Chemotherapy and/or radiotherapy (%)		Surgery				Total (%)	
					Palliative operation (%)		Esophagectomy (%)			
PUL	5	(19.2%)	83	(19.1%)	0		17	(8.6%)	105	(15.7%)
OSS	1	(3.8%)	29	(6.7%)	0		3	(1.5%)	33	(4.9%)
HEP	5	(19.2%)	83	(19.1%)	1	(9.1%)	18	(9.1%)	107	(16.0%)
BRA	0		9	(2.1%)	0		1	(0.5%)	10	(1.5%)
LYM	12	(46.2%)	182	(41.9%)	7	(63.6%)	148	(75.1%)	349	(52.2%)
MAR	0		1	(0.2%)	0		0		1	(0.1%)
PLE	0		2	(0.5%)	0		0		2	(0.3%)
PER	0		3	(0.7%)	0		1	(0.5%)	4	(0.6%)
SKI	1	(3.8%)	4	(0.9%)	0		1	(0.5%)	6	(0.9%)
OTH	1	(3.8%)	18	(4.1%)	0		4	(2.0%)	23	(3.4%)
Unknown	1	(3.8%)	20	(4.6%)	3	(27.3%)	4	(2.0%)	28	(4.2%)
Lesions	26		434		11		197		668	
Missing	2		18		0		8		28	
One organ	16	(76.2%)	296	(80.2%)	8	(72.7%)	178	(94.2%)	498	(84.4%)
Two organs	3	(14.3%)	46	(12.5%)	0		6	(3.2%)	55	(9.3%)
Three organs	1	(4.8%)	5	(1.4%)	0		1	(0.5%)	7	(1.2%)
Four organs~	0		3	(0.8%)	0		0		3	(0.5%)
Unknown	1	(4.8%)	19	(5.1%)	3	(27.3%)	4	(2.1%)	27	(4.6%)
Total cases	21		369		11		189		590	
Missing	2		18		0		8		28	

PUL: pulmones, OSS: ossis, HEP: hepar, BRA: brain, LYM: lymph node, MAR: marrow,

PLE: pleural membrane, PER:peritoneal membrane, SKI: skin, OTH: others

Table 20 Clinical stage (JSED-cTNM 9th)

*** Excluding 185 treatment unknown, missing cases of treatment types**

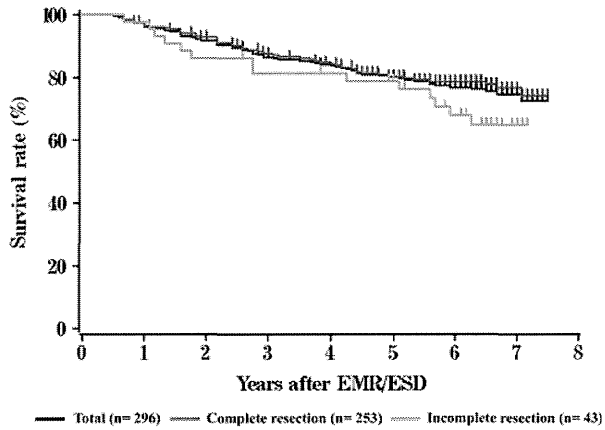
cStage	Endoscopic treatment (%)		Chemotherapy and/or radiotherapy (%)		Surgery				Total (%)	
					Palliative operation(%)		Esophagectomy (%)			
0	77	(15.1%)	4	(0.3%)	1	(0.9%)	19	(0.8%)	101	(2.4%)
I	342	(66.9%)	175	(13.7%)	18	(15.5%)	521	(22.0%)	1056	(24.7%)
IIA	6	(1.2%)	122	(9.5%)	23	(19.8%)	455	(19.3%)	606	(14.2%)
IIB	10	(2.0%)	75	(5.9%)	6	(5.2%)	295	(12.5%)	386	(9.0%)
III	24	(4.7%)	463	(36.2%)	52	(44.8%)	816	(34.5%)	1355	(31.7%)
IV	3	(0.6%)	107	(8.4%)	1	(0.9%)	33	(1.4%)	144	(3.4%)
IVA	4	(0.8%)	65	(5.1%)	6	(5.2%)	75	(3.2%)	150	(3.5%)
IVB	11	(2.2%)	198	(15.5%)	5	(4.3%)	92	(3.9%)	306	(7.2%)
Unknown	34	(6.7%)	71	(5.5%)	4	(3.4%)	57	(2.4%)	166	(3.9%)
Total	511		1280		116		2363		4270	
Missing	20		37		0		147		204	

II. Clinical results of patient treated with endoscopy in 2003

Table 21 Treatment modalities in patients receiving endoscopy

Treatment modarities	Cases (%)	
Endoscopic treatment only	440	(82.9%)
Endoscopic treatment + Radiotherapy	23	(4.3%)
Endoscopic treatment + Chemotherapy	15	(2.8%)
Endoscopic treatment + Chemoradiotherapy	52	(9.8%)
Endoscopic treatment + Chemoradiotherapy + Others	0	
Endoscopic treatment + Others	1	(0.2%)
Total	531	
Missing	0	

Fig. 1 Survival of patients treated by EMR/ESD



	Years after EMR/ESD							
	1	2	3	4	5	6	7	8
Total	**97.1%**	**91.7%**	**86.5%**	**83.8%**	**80.0%**	**76.8%**	**74.6%**	**72.5%**
Complete resection	**97.1%**	**92.7%**	**87.4%**	**84.2%**	**80.2%**	**78.5%**	**76.6%**	**74.2%**
Incomplete resection	**97.7%**	**86.0%**	**81.3%**	**81.3%**	**78.8%**	**67.9%**	**64.8%**	**64.8%**

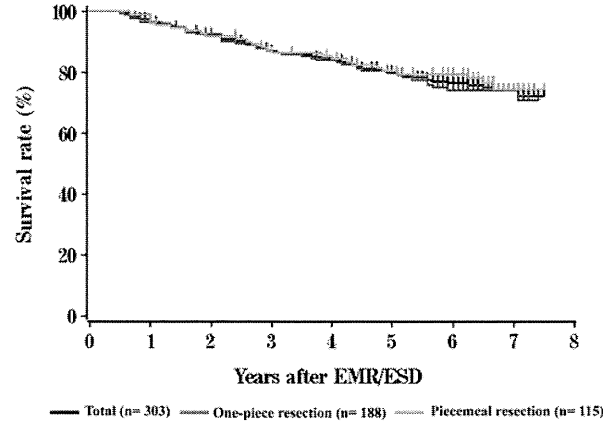


Fig. 2 Survival of patients in relation to type of EMR/ESD

	Years after EMR/ESD							
	1	2	3	4	5	6	7	8
Total	97.2%	92.2%	87.1%	84.1%	80.1%	76.4%	72.2%	72.2%
One piece resection	96.6%	92.5%	87.1%	84.0%	79.9%	74.1%	74.1%	70.9%
Piecemeal resection	98.2%	91.9%	87.3%	84.4%	80.4%	79.4%	74.3%	74.3%

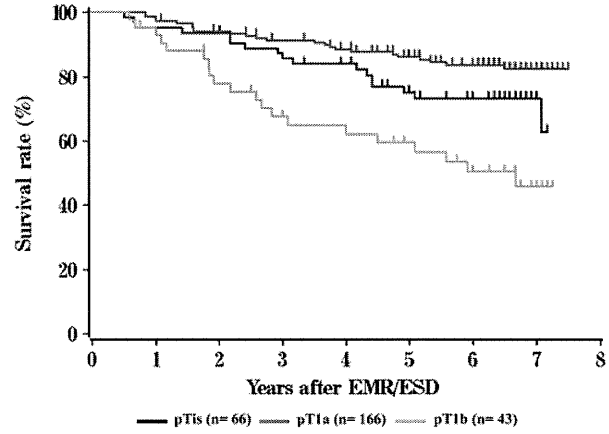


Fig. 3 Survival of patients treated by EMR/ESD in relation to the pathological depth of tumor invasion (pT)

	Years after EMR/ESD							
	1	2	3	4	5	6	7	8
pTis	95.2%	93.7%	87.2%	84.0%	75.1%	73.3%	73.3%	62.8%
pT1a	98.0%	94.0%	91.3%	88.4%	86.2%	83.6%	82.4%	82.4%
pT1b	95.2%	77.9%	67.6%	62.2%	59.5%	50.4%	45.8%	45.8%

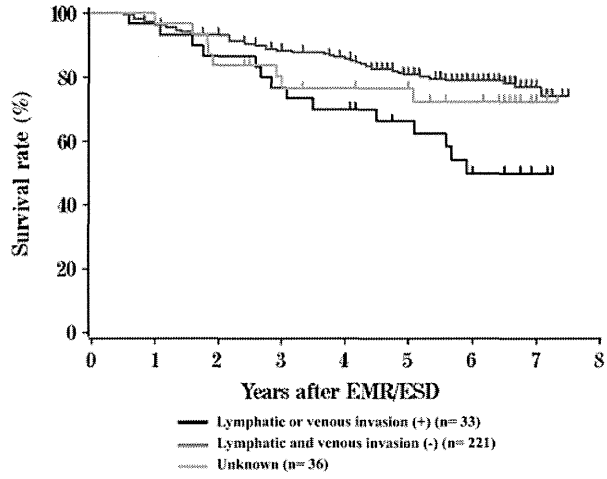


Fig. 4 Survival of patients treated by EMR/ESD in relation to the lymphatic or venous invasion

	Years after EMR/ESD							
	1	2	3	4	5	6	7	8
Lymphatic or venous invasion (+)	**96.7%**	**86.7%**	**76.7%**	**70.0%**	**66.3%**	**49.9%**	**49.9%**	**49.9%**
Lymphatic and venous invasion (-)	**96.7%**	**93.3%**	**88.3%**	**85.8%**	**80.9%**	**79.0%**	**77.0%**	**74.2%**
Unknown	**100.0%**	**83.9%**	**80.2%**	**76.6%**	**76.6%**	**72.3%**	**72.3%**	**72.3%**

III. Clinical results in patients treated with chemotherapy and/or radiotherapy in 2003

Table 34 Dose of irradiation with or without chemotherapy (non-surgically treated and curative cases)

Dose of irradiation (Gy)	Chemotherapy				Preope RT (%)		Postope RT (%)	
	with (%)		without (%)					
0	0		0		0		0	
-29	5	(1.3%)	6	(7.9%)	10	(4.0%)	7	(4.5%)
30-39	9	(2.3%)	1	(1.3%)	80	(32.1%)	7	(4.5%)
40-49	22	(5.7%)	0		128	(51.4%)	56	(36.4%)
50-59	25	(6.5%)	7	(9.2%)	5	(2.0%)	37	(24.0%)
60-69	303	(78.3%)	52	(68.4%)	22	(8.8%)	44	(28.6%)
70-	23	(5.9%)	10	(13.2%)	4	(1.6%)	3	(1.9%)
Total	387		76		249		154	
Median (min - max)	60 (18 - 146)		60 (2 - 120)		40 (2 - 81.4)		50 (2 - 81.4)	
Missing	16		4		29		40	

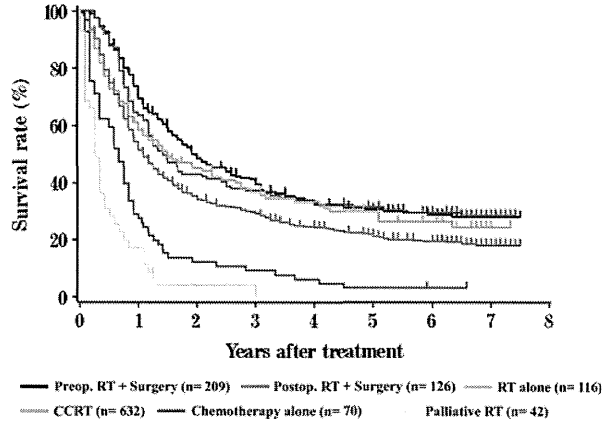


Fig. 5 Survival of patients treated by chemotherapy and/or radiotherapy

	Years after treatment							
	1	2	3	4	5	6	7	8
Preop. RT + Surgery	72.8%	49.9%	41.1%	32.4%	30.7%	28.7%	27.9%	27.9%
Postop. RT + Surgery	64.4%	42.9%	37.2%	33.0%	31.4%	29.6%	28.5%	28.5%
RT alone	60.2%	45.0%	36.7%	33.4%	30.0%	26.2%	24.4%	24.4%
CCRT	53.7%	35.2%	29.8%	24.4%	21.9%	19.4%	18.1%	18.1%
Chemotherapy alone	28.9%	12.2%	9.1%	6.1%	3.0%	3.0%	3.0%	-
Palliative RT	16.9%	4.2%	4.2%	-	-	-	-	-

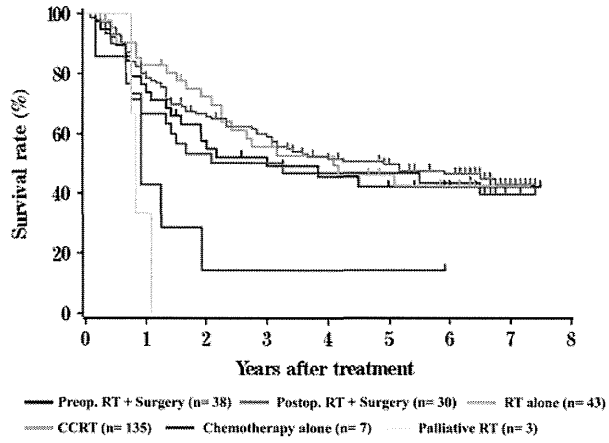


Fig. 6 Survival of patients treated by chemotherapy and/or radiotherapy (cStage I-IIA)

	Years after treatment							
	1	2	3	4	5	6	7	8
Preop. RT + Surgery	73.7%	57.6%	52.1%	45.7%	42.2%	42.2%	42.2%	42.2%
Postop. RT + Surgery	66.7%	53.3%	50.0%	46.7%	46.7%	43.3%	39.7%	39.7%
RT alone	82.8%	72.2%	55.6%	52.5%	46.3%	42.5%	42.5%	42.5%
CCRT	79.3%	66.5%	59.9%	51.4%	49.5%	46.5%	42.8%	42.8%
Chemotherapy alone	42.9%	14.3%	14.3%	14.3%	14.3%	14.3%	-	-
Palliative RT	33.3%	-	-	-	-	-	-	-

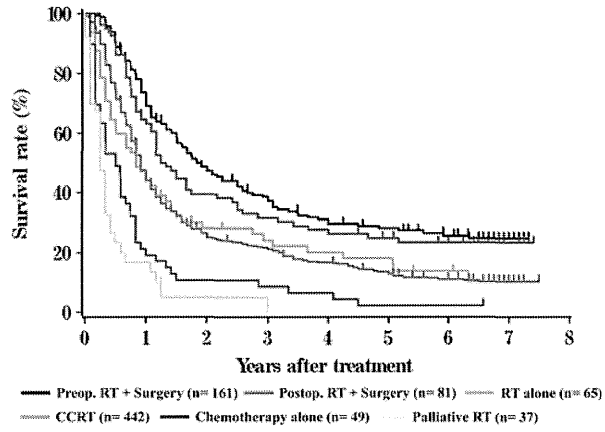


Fig. 7 Survival of patients treated by chemotherapy and/or radiotherapy (cStage IIB-IVB)

	Years after treatment							
	1	2	3	4	5	6	7	8
Preop. RT + Surgery	**72.8%**	**48.7%**	**38.5%**	**29.5%**	**28.0%**	**25.6%**	**24.7%**	**24.7%**
Postop. RT + Surgery	**64.4%**	**39.4%**	**31.5%**	**26.3%**	**24.9%**	**23.3%**	**23.3%**	**23.3%**
RT alone	**45.5%**	**28.1%**	**24.1%**	**20.1%**	**18.1%**	**13.8%**	**10.3%**	-
CCRT	**46.9%**	**26.4%**	**21.7%**	**16.6%**	**13.6%**	**11.0%**	**10.3%**	**10.3%**
Chemotherapy alone	**21.3%**	**10.6%**	**8.5%**	**6.4%**	**2.1%**	**2.1%**	**2.1%**	-
Palliative RT	**16.8%**	**5.0%**	**5.0%**	**0.0%**	-	-	-	-

IV. Clinical results in patients treated with esophagectomy in 2003

Table 45 Tumor location

Locations	Cases (%)	
Cervical	74	(3.0%)
Upper thotacic	268	(10.8%)
Middle thoracic	1146	(46.3%)
Lower thoracic	792	(32.0%)
Abdominal	152	(6.1%)
EG	18	(0.7%)
EG-Junction (E=G)	19	(0.8%)
Unknown	8	(0.3%)
Total lesions	2477	
Total cases	2477	
Missing	23	

EG: esophago-gastric

Table 46 Approaches to tumor resection

Approaches	Cases (%)	
Cervical approach	80	(3.5%)
Right thoracotomy	1832	(81.2%)
Left thoracotomy	46	(2.0%)
Left thoracoabdominal approach	53	(2.4%)
Laparotomy	78	(3.5%)
Transhiatal (without blunt dissection)	33	(1.5%)
Transhiatal (with blunt dissection)	80	(3.5%)
Sternotomy	6	(0.3%)
Others	27	(1.2%)
Unknown	20	(0.9%)
Total	2255	
Missing	255	

Table 47 Endoscopic surgery

Endoscopic surgery	Cases (%)
None	1899 (84.4%)
Thoracoscopy-assisted	187 (8.3%)
Laparoscopy-assisted	73 (3.2%)
Thoracoscopy + Laparoscopy-assisted	64 (2.8%)
Mediastinoscopy-assisted	20 (0.9%)
Thoracoscopy + Mediastinoscopy-assisted	0
Laparoscopy + Mediastinoscopy-assisted	1 (0.0%)
Others	3 (0.1%)
Unknown	4 (0.2%)
Total	2251
Missing	259

Table 48 Fields of lymph node dissection according to the location of the tumor

*** Excluding pharynx and missing 38 cases of locations**

Locations	Cevical	Upper thoracic	Middle thoracic	Lower thoracic	Abdominal	EGJ	Total
Region of lymphadenectomy	Cases (%)	Cases (%)	Cases (%)	Cases (%)	Cases (%)	Cases (%)	Cases (%)
None	7 (10.3%)	7 (3.0%)	45 (4.3%)	17 (2.4%)	5 (3.6%)	0	81 (3.8%)
C	21 (30.9%)	2 (0.8%)	3 (0.3%)	1 (0.1%)	0	0	27 (1.3%)
C+UM	14 (20.6%)	2 (0.8%)	3 (0.3%)	0	0	0	19 (0.9%)
C+UM+MLM	2 (2.9%)	7 (3.0%)	13 (1.3%)	9 (1.3%)	0	0	31 (1.4%)
C+UM+MLM+A	15 (22.1%)	132 (55.9%)	467 (45.0%)	219 (30.9%)	8 (5.7%)	2 (5.9%)	843 (39.3%)
C+UM+A	3 (4.4%)	1 (0.4%)	1 (0.1%)	2 (0.3%)	0	0	7 (0.3%)
C+MLM	0	0	0	0	0	0	0
C+MLM+A	0	1 (0.4%)	3 (0.3%)	1 (0.1%)	0	0	5 (0.2%)
C+A	0	1 (0.4%)	2 (0.2%)	2 (0.3%)	1 (0.7%)	0	6 (0.3%)
UM	0	3 (1.3%)	1 (0.1%)	3 (0.4%)	0	0	7 (0.3%)
UM+MLM	0	6 (2.5%)	19 (1.8%)	8 (1.1%)	1 (0.7%)	0	34 (1.6%)
UM+MLM+A	3 (4.4%)	57 (24.2%)	404 (38.9%)	334 (47.1%)	28 (20.0%)	3 (8.8%)	829 (38.7%)
UM+A	0	1 (0.4%)	4 (0.4%)	3 (0.4%)	0	0	8 (0.4%)
MLM	0	2 (0.8%)	4 (0.4%)	6 (0.8%)	4 (2.9%)	2 (5.9%)	18 (0.8%)
MLM+A	1 (1.5%)	8 (3.4%)	43 (4.1%)	83 (11.7%)	56 (40.0%)	18 (52.9%)	209 (9.7%)
A	0	0	14 (1.3%)	18 (2.5%)	35 (25.0%)	9 (26.5%)	76 (3.5%)
Unknown	2 (2.9%)	6 (2.5%)	12 (1.2%)	3 (0.4%)	2 (1.4%)	0	25 (1.2%)
Total	68	236	1038	709	140	34	2144
Missing	6	32	108	83	15	3	247

C: bilateral cervical nodes

UM: upper mediastinal nodes

MLM: middle-lower mediastinal nodes

A: abdominal nodes

Table 49 Extent of lymph node dissection

Grade of dissection (D)	Cases (%)	
DX	47	(2.1%)
D0	121	(5.4%)
DI	292	(13.1%)
DII	1023	(45.8%)
DIII	751	(33.6%)
Total	2234	
Missing	276	

Table 50 Reconstruction route

Reconstruction route	Cases (%)	
None	30	(1.4%)
Antethoracic	212	(9.6%)
Retrosternal	736	(33.3%)
Intrathoracic	348	(15.7%)
Posterior mediastinal	826	(37.3%)
Others	38	(1.7%)
Unknown	23	(1.0%)
Total	2213	
Missing	278	

Table 51 Organs used for reconstruction

Organs used for reconstruction	Cases (%)	
None	36	(1.5%)
Whole stomach	227	(9.7%)
Gastric tube	1758	(74.9%)
Jejunum	107	(4.6%)
Free jejunum	34	(1.4%)
Colon	101	(4.3%)
Free colon	9	(0.4%)
Skin graft	1	(0.0%)
Others	67	(2.9%)
Unknown	8	(0.3%)
Total lesions	2348	
Total cases	2248	
Missing	262	

Table 58 Histological classification

Histological classification	Cases (%)	
Not examined	6	(0.3%)
SCC	1985	(88.9%)
SCC	226	(10.1%)
Well diff.	450	(20.2%)
Moderately diff.	944	(42.3%)
Poorly diff.	365	(16.3%)
Adenocarcinoma	73	(3.3%)
Barrett's adenocarcinoma	37	(1.7%)
Adenosquamous cell carcinoma	10	(0.4%)
(Co-existing)	1	(0.0%)
(Mucoepidermoid carcinoma)	1	(0.0%)
Adenoid cystic carcinoma	2	(0.1%)
Basaloid carcinoma	24	(1.1%)
Undiff. carcinoma (small cell)	9	(0.4%)
Undiff. carcinoma	6	(0.3%)
Other carcinoma	1	(0.0%)
Sarcoma	17	(0.8%)
Carcinosarcoma	4	(0.2%)
Malignant melanoma	6	(0.3%)
Dysplasia	5	(0.2%)
Other	22	(1.0%)
Unkown	24	(1.1%)
Total	2233	
Missing	277	

SCC: Squamous cell carcinoma

Table 59 Depth of tumor invasion

pT-category	Cases (%)	
pTX	7	(0.3%)
pT0	35	(1.6%)
pTis	33	(1.5%)
pT1a	175	(7.8%)
pT1b	517	(23.2%)
pT2	314	(14.1%)
pT3	959	(42.9%)
pT4	154	(6.9%)
Other	0	
Unknown	39	(1.7%)
Total	2233	
Missing	277	

Table 60 Subclassification of superficial carcinoma

Subclassification	Cases (%)	
Not superficial carcinoma	1487	(66.9%)
m1 (ep)	35	(1.6%)
m2 (lpm)	64	(2.9%)
m3 (mm)	101	(4.5%)
sm1	70	(3.1%)
sm2	113	(5.1%)
sm3	232	(10.4%)
Unknown	122	(5.5%)
Total	2224	
Missing	286	

ep: epithelium

lpm: lamina propria muosa mm: muscularis mucosa

Table 61 Pathological grading of lymph node metastasis

Lymph node metastasis	Cases (%)	
n (-)	910	(41.7%)
n1 (+)	329	(15.1%)
n2 (+)	539	(24.7%)
n3 (+)	181	(8.3%)
n4 (+)	177	(8.1%)
Unknown	44	(2.0%)
Total	2180	
Missing	330	

Table 62 Numbers of the metastatic nodes

Numbers of lymph node metastasis	Cases (%)	
0	1176	(46.9%)
1-3	737	(29.4%)
4-7	288	(11.5%)
8-	223	(8.9%)
Unknown	85	(3.4%)
Total	2509	
Missing	1	

Table 63 Pathological findings of distant organ metastasis

Distant metastasias (M)	Cases (%)	
MX	29	(1.3%)
M0	2171	(96.6%)
M1	48	(2.1%)
Total	2248	
Missing	262	

Table 64 Residual tumor

Residual tumor (R)	Cases (%)	
RX	117	(5.3%)
R0	1797	(82.0%)
R1	141	(6.4%)
R2	124	(5.7%)
Unknown	12	(0.5%)
Total	2191	
Missing	319	

Table 75 Causes of death

Cause of death	Cases (%)	
Death due to recurrence	780	(70.0%)
Death due to other cancer	52	(4.7%)
Death due to other disease (rec+)	41	(3.7%)
Death due to other disease (rec-)	122	(11.0%)
Death due to other disease (rec?)	23	(2.1%)
Death within 30 days after operation	25	(2.2%)
Death 31 days or more after operation	52	(4.7%)
Unknown	19	(1.7%)
Total of death cases	1114	
Missing	14	

rec: recurrence

Operative death means death within 30 days after operation in or out of hospital.

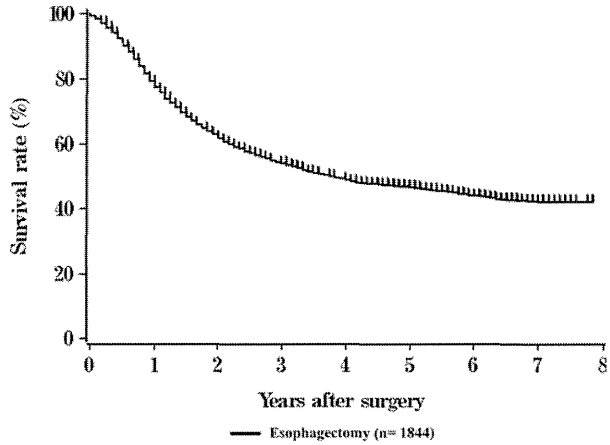
Operative mortality : 1.0%

Follow-up period (years)	
Median (min - max)	2.75 (0.00 - 7.41)

Table 76 Initial recurrent lesion

Initial recurrence lesion of fatal cases	Cases (%)	
Lymph node	509	(41.4%)
Lung	200	(16.3%)
Liver	176	(14.3%)
Bone	106	(8.6%)
Brain	29	(2.4%)
Primary lesion	95	(7.7%)
Dissemination	56	(4.6%)
Anastomotic region	2	(0.2%)
Others	48	(3.9%)
Unknown	8	(0.7%)
Total of recurrence lesion	1229	
Total	1081	
Missing	347	

Fig. 8 Survival of patients treated by esophagectomy



	Years after surgery							
	1	2	3	4	5	6	7	8
Esophagectomy	**78.9%**	**62.8%**	**54.4%**	**48.9%**	**46.6%**	**44.0%**	**42.2%**	**41.9%**

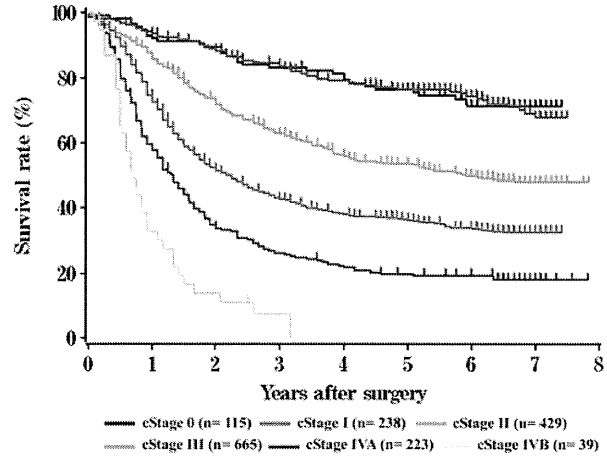


Fig. 9 Survival of patients treated by esophagectomy in relation to clinical stage (JSED-cTNM 9th)

	Years after surgery							
	1	2	3	4	5	6	7	8
cStage 0	92.9%	89.4%	83.0%	79.3%	76.5%	71.2%	71.2%	71.2%
cStage I	94.2%	89.0%	84.4%	79.3%	76.3%	74.3%	69.1%	67.7%
cStage II	87.5%	73.6%	62.9%	55.8%	53.4%	49.7%	47.9%	47.9%
cStage III	74.3%	52.3%	43.0%	37.9%	36.3%	33.7%	32.4%	32.4%
cStage IVA	59.1%	34.6%	26.2%	21.7%	19.7%	19.2%	17.9%	17.9%
cStage IVB	32.7%	13.6%	7.3%	-	-	-	-	-

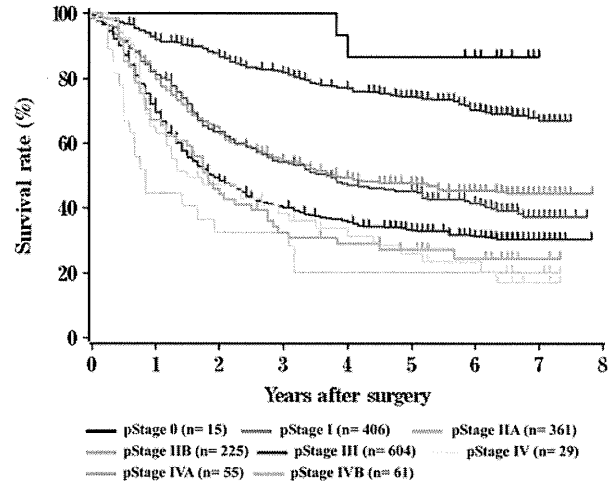


Fig. 10 Survival of patients treated by esophagectomy in relation to clinical stage (UICC-cTNM 5th)

	Years after surgery							
	1	2	3	4	5	6	7	8
cStage 0	93.3%	93.3%	93.3%	86.7%	86.7%	86.7%	86.7%	-
cStage I	92.9%	87.8%	82.2%	76.9%	74.3%	67.8%	66.8%	-
cStage IIA	81.9%	65.1%	55.0%	49.3%	47.5%	45.3%	44.4%	44.4%
cStage IIB	82.0%	63.6%	54.2%	47.0%	45.1%	41.5%	37.4%	37.4%
cStage III	71.6%	49.3%	40.5%	35.6%	33.3%	31.4%	30.4%	30.4%
cStage IV	44.4%	32.3%	28.3%	20.2%	20.2%	20.2%	20.2%	-
cStage IVA	65.0%	47.2%	38.4%	31.1%	25.9%	23.3%	20.2%	20.2%
cStage IVB	67.2%	45.9%	32.5%	29.0%	27.0%	24.3%	24.3%	24.3%

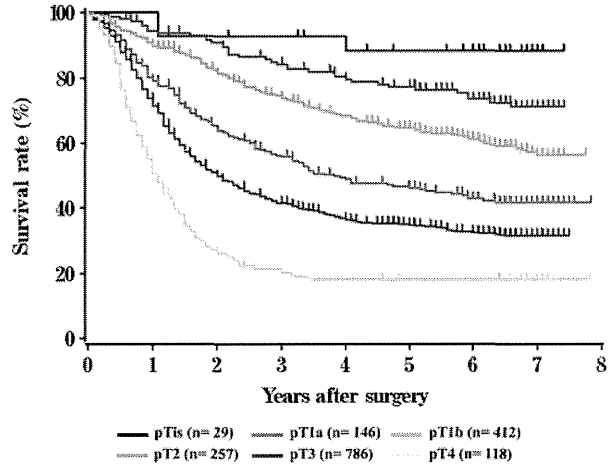


Fig. 11 Survival of patients treated by esophagectomy in relation to the depth of tumor invasion (JSED-pTNM 9th: pT)

	Years after surgery							
	1	2	3	4	5	6	7	8
pTis	100.0%	92.6%	92.6%	88.2%	88.2%	88.2%	88.2%	88.2%
pT1a	94.3%	90.7%	84.1%	79.5%	77.1%	73.4%	71.0%	71.0%
pT1b	90.8%	82.5%	74.5%	68.4%	64.6%	61.2%	57.1%	56.2%
pT2	80.1%	65.2%	56.1%	48.8%	46.2%	42.7%	41.6%	41.6%
pT3	73.3%	50.9%	41.4%	36.3%	34.9%	32.6%	31.5%	31.5%
pT4	53.3%	27.0%	21.2%	18.0%	18.0%	18.0%	18.0%	18.0%

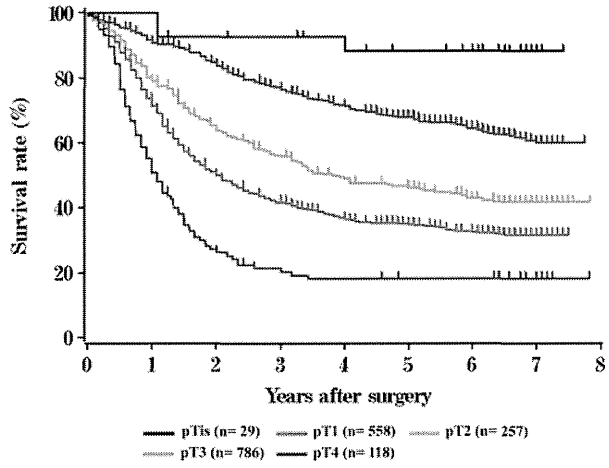


Fig. 12 Survival of patients treated by esophagectomy in relation to the depth of tumor invasion (UICC-pTNM 5th: pT)

	Years after surgery							
	1	2	3	4	5	6	7	8
pTis	100.0%	92.6%	92.6%	88.2%	88.2%	88.2%	88.2%	88.2%
pT1	91.8%	84.6%	77.0%	71.3%	67.8%	64.3%	60.7%	60.0%
pT2	80.1%	65.2%	56.1%	48.8%	46.2%	42.7%	41.6%	41.6%
pT3	73.3%	50.9%	41.4%	36.3%	34.9%	32.6%	31.5%	31.5%
pT4	53.3%	27.0%	21.2%	18.0%	18.0%	18.0%	18.0%	18.0%

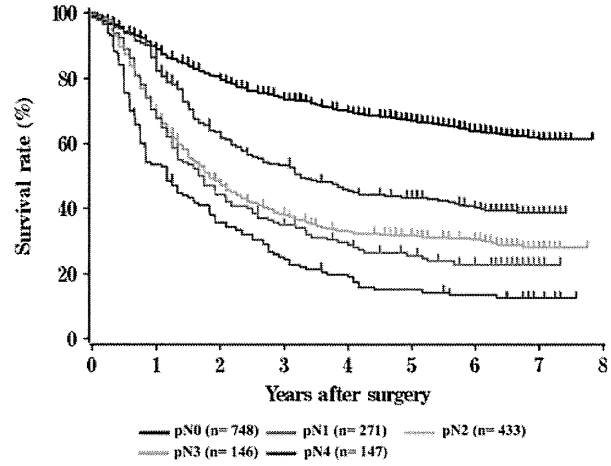


Fig. 13 Survival of patients treated by esophagectomy in relation to lymph node mentastasis (JSED-pTNM 9th: pN)

	Years after surgery							
	1	2	3	4	5	6	7	8
pN0	89.8%	80.5%	74.1%	69.6%	67.0%	63.7%	61.8%	61.2%
pN1	86.3%	63.5%	53.4%	45.3%	43.3%	40.6%	38.5%	38.5%
pN2	69.8%	48.4%	38.2%	32.7%	31.7%	30.4%	28.0%	28.0%
pN3	69.7%	44.2%	34.9%	28.8%	25.5%	22.8%	22.8%	22.8%
pN4	53.5%	35.7%	25.0%	18.9%	15.0%	13.3%	12.4%	12.4%

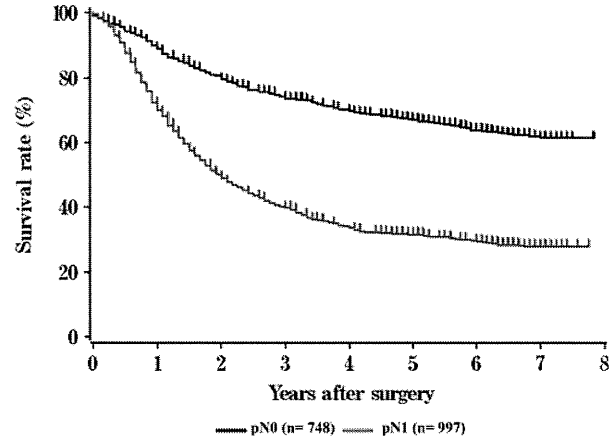


Fig. 14 Survival of patients treated by esophagectomy in relation to lymph node mentastasis (UICC-pTNM 5th: pN)

	Years after surgery							
	1	2	3	4	5	6	7	8
pN0	89.8%	80.5%	74.1%	69.6%	67.0%	63.7%	61.8%	61.2%
pN1	72.0%	50.1%	40.0%	33.6%	31.6%	29.6%	27.8%	27.8%

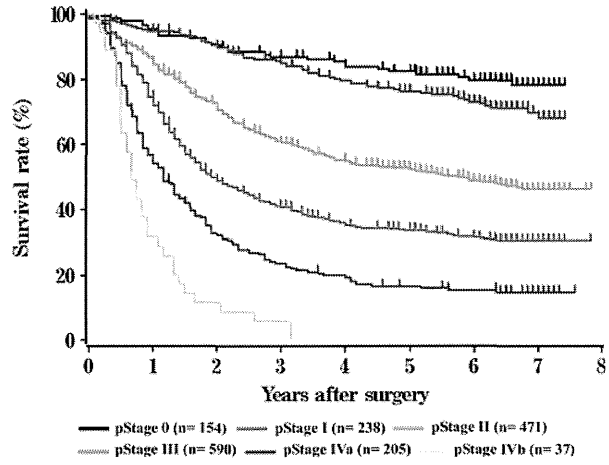


Fig. 15 Survival of patients treated by esophagectomy in relation to pathological stage (JSED-pTNM 9th)

	Years after surgery							
	1	2	3	4	5	6	7	8
pStage 0	95.3%	90.5%	86.9%	83.9%	82.3%	79.6%	78.3%	78.3%
pStage I	94.8%	90.8%	85.8%	79.7%	76.3%	73.0%	69.8%	68.1%
pStage II	86.6%	72.7%	61.1%	54.9%	52.6%	48.9%	46.2%	46.2%
pStage III	74.4%	49.8%	41.0%	35.3%	33.7%	31.7%	30.5%	30.5%
pStage IVa	55.8%	32.7%	23.6%	19.3%	16.5%	15.3%	14.6%	14.6%
pStage IVb	31.7%	11.5%	5.8%	0.0%	-	-	-	-

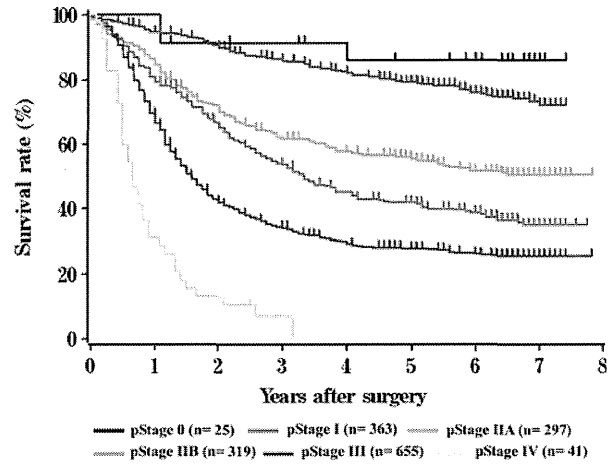


Fig. 16 Survival of patients treated by esophagectomy in relation to pathological stage (UICC-pTNM 5th)

	Years after surgery							
	1	2	3	4	5	6	7	8
pStage 0	100.0%	91.3%	91.3%	85.9%	85.9%	85.9%	85.9%	-
pStage I	94.6%	90.5%	86.4%	82.0%	79.1%	75.8%	73.2%	72.1%
pStage IIA	86.1%	72.1%	62.0%	57.6%	55.8%	51.6%	50.5%	50.5%
pStage IIB	80.8%	66.7%	54.0%	45.3%	41.8%	38.7%	34.9%	34.9%
pStage III	69.0%	42.9%	34.2%	29.1%	27.7%	26.3%	25.4%	25.4%
pStage IV	31.1%	13.0%	6.9%	-	-	-	-	-

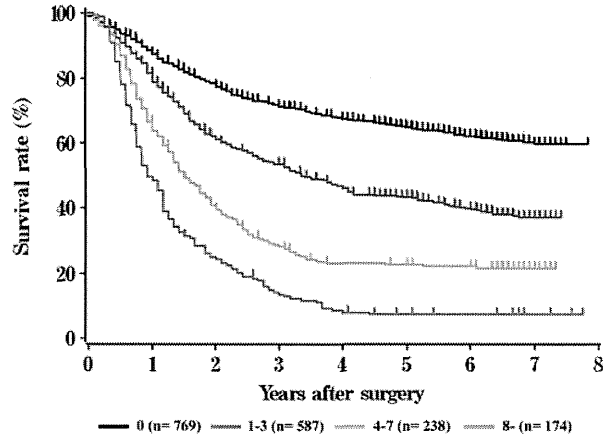


Fig. 17 Survival of patients treated by esophagectomy in relation to number of mentastatic node

	Years after surgery							
	1	2	3	4	5	6	7	8
0	88.3%	78.6%	71.8%	67.5%	64.9%	62.1%	60.2%	59.7%
1-3	81.2%	62.1%	53.4%	46.1%	43.3%	39.8%	37.1%	37.1%
4-7	66.3%	40.7%	28.6%	23.2%	22.7%	22.1%	21.5%	21.5%
8-	48.9%	24.9%	14.1%	8.0%	7.3%	7.3%	7.3%	7.3%

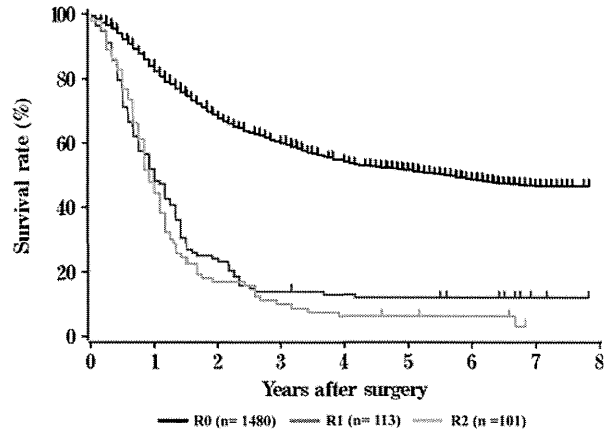


Fig. 18 Survival of patients treated by esophagectomy in relation to residual tumor (R)

	Years after surgery							
	1	2	3	4	5	6	7	8
R0	83.6%	68.8%	60.4%	54.2%	51.6%	48.8%	46.9%	46.6%
R1	52.0%	24.1%	13.9%	12.9%	11.9%	11.9%	11.9%	11.9%
R2	45.5%	16.9%	9.8%	6.1%	6.1%	6.1%	3.1%	-

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Changing trend in the patterns of pretreatment diagnostic assessment for patients with cervical cancer in Japan

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ABSTRACT

Objective. Cancer staging systems should be responsive to the development of diagnostic tools. The International Federation of Gynecology and Obstetrics (FIGO) cervical cancer guidelines were modified in 2009 regarding the pretreatment assessment. We report the recent Japanese patterns of pretreatment workup for cervical cancer.

Methods. The Japanese Patterns of Care Study (PCS) working group analyzed the pretreatment diagnostic assessment data of 609 patients with cervical cancer treated with definitive radiotherapy in the two survey periods (1999–2001, 324; 2003–2005, 285) in Japan. Sixty-one of 640 institutions were selected for this survey using a stratified two-staged cluster sampling method.

Results. The use of optional examinations in the latest FIGO guidelines such as intravenous urography, cystoscopy, and proctoscopy was gradually decreasing. Surgical staging was rarely performed in either survey period. Computed tomography (CT) and magnetic resonance imaging (MRI) were widely used, and MRI has become increasingly prevalent even between the two survey periods. Primary lesion size and pelvic lymph node status was evaluated by CT/MRI for most patients in both surveys.

Conclusions. The use of CT/MRI that is encouraged in the latest FIGO staging guidelines already replaced intravenous urography, cystoscopy, and proctoscopy in Japan. Japanese patients received the potential benefit of CT/MRI because prognostic factors such as primary lesion size and pelvic lymph node status were evaluated by these modalities. The use of cystoscopy and proctoscopy should be continuously monitored in the future PCS survey because only CT/MRI could lead to the stage migration for patients on suspicion of bladder/rectum involvement on CT/MRI.

Introduction

Radiation therapy is established as an integral component of cervical cancer. Accurate understanding of the cancer's extent is necessary for appropriate radiation treatment planning. In the first place, precise cancer staging is essential to predict prognosis and make appropriate decision regarding the primary treatment. The International Federation of Gynecology and Obstetrics (FIGO) provided a global staging system for gynecologic cancers and made several modifications over time. The previous FIGO guidelines recommended that staging be based on physical examination, colposcopy, hysteroscopy, lesion biopsy, cystoscopy, proctoscopy, intravenous urography, and X-ray examination of the chest and skeleton. Of these, findings of optional examinations such as lymphangiography, ultrasound, computed tomography (CT), and magnetic resonance imaging (MRI) are of value for planning therapy, but, because these are not generally available and the interpretation of results is variable, the findings of such studies should not be the basis for changing the clinical staging [1]. However, cancer staging systems should be based on, and updated according to, the latest available knowledge, implying that they should be responsive and adaptive to scientific developments [2]. Thus, the FIGO guidelines for cervical cancer were modified in January 2009. In the updated guidelines, radiological tumor volume and parametrial invasion should be recorded for those institutions with access to MRI/CT [3]. In addition, other investigations such as cystoscopy, proctoscopy, and intravenous urography were classified as optional and no longer mandatory [3].

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The Patterns of Care study (PCS) initially surveyed radiotherapy practice in the United States, and the structure, process, and outcomes of radiotherapy, as well as various problems in clinical practice, have been identified for cervical cancer [4,5]. The Japanese PCS began in 1996 and used the same methods [6]. To accurately evaluate the cancer stage and optimally treat Japanese cervical cancer patients, it is important to accurately delineate the intrinsic changes in the patterns of pretreatment workup for cervical cancer in Japan. We previously reported the care process patterns in pretreatment diagnostic assessment and staging for patients with cervical cancer treated in 1999–2001 [7]. We report here the corresponding results for 2003–2005, and the changes over the years in pretreatment work-up from the 1999–2001 to 2003–2005 survey periods are examined.

Methods and materials

Between 2006 and 2008, the Japanese PCS conducted a third national survey of patients with uterine cervical cancer treated with radiotherapy. Eligibility criteria for the survey were as follows: (1) carcinoma, (2) treated between January 2003 and December 2005, (3) no distant metastasis, (4) no prior or concurrent malignancy, (5) no gross paraaortic lymph node metastasis, and (6) no previous pelvic radiotherapy. Sixty-one of 640 institutions were selected for this survey using a stratified two-staged cluster sampling method. Before the random sampling, all institutions were classified into four groups. Institutions were classified by type and number of patients treated with radiotherapy. The Japanese PCS stratified institutions as follows: A1, academic institutions treating ≥430 patients annually; A2, <430 patients; B1, nonacademic institutions treating ≥130 patients annually; B2, <130 patients. Academic institutions included cancer center hospitals and university hospitals. Nonacademic institutions consisted of other facilities, such as national, prefectural, municipal, and private hospitals. The detailed criteria for stratification have been shown elsewhere [6]. The Japanese PCS surveyors performed on-site chart reviews at each participating facility using an originally developed database format for cervical cancer. Data collection included patient characteristics, details of the pretreatment workup, therapeutic information (e.g., radiotherapy, chemotherapy, and surgery), and treatment outcome. The Japanese PCS collected clinical data on 487 patients with uterine cervical cancer who were treated with radiotherapy from 61 institutions. In this study, 285 patients treated by radiotherapy without planned surgery were analyzed. These included 114 patients from A1 institutions, 87 patients from A2 institutions, 50 patients from B1 institutions, and 34 patients from B2 institutions. There were unknown and missing data in the tables because no valid data were found in the given resources.

The current study compared the pretreatment workup data of two Japanese PCS surveys with more than 600 patients (1999–2001, 324; 2003–2005, 285) with cervical cancer treated by radiotherapy with curative intent. The methods for the 1999–2001 Japanese PCS were the same as those for 2003–2005. Ratios were calculated without unknown or missing data. Statistical significance was tested using the chi-square test.

Results

Table 1 gives a comparison of the patient characteristics between the Japanese PCS 1999–2001 and 2003–2005 survey of cervical cancer patients treated with definitive radiotherapy. The ages of the analyzed cohort were significantly different in the 1999–2001 and 2003–2005 surveys ($p<0.0001$). Histology and FIGO stage were not significantly different in the two survey periods.

Table 2 shows a comparison of the performance rates of diagnostic procedures with a certain rate of unknown or missing data between the 1999–2001 and 2003–2005 surveys. Most patients underwent a chest X-ray in both the 1999–2001 and 2003–2005 surveys, but the ratio of patients who underwent a chest X-ray significantly decreased

Table 1
Patient and tumor characteristics of patients with uterine cervical cancer treated with radiotherapy in each surveillance period.

Characteristics	No. of patients (%)		
	1999–2001 (n=324)	2003–2005 (n=285)	p
Age (years)			<0.0001
Range	26–100	25–95	
Median	71	67	
Histology			0.84
Squamous cell	300 (94%)	257 (92%)	
Adenocarcionoma	14 (4%)	14 (5%)	
Adenosquamous cell	4 (1%)	5 (2%)	
Other	2 (1%)	3 (1%)	
Unknown/missing	4 (−)	6 (−)	
FIGO stage			0.13
I	43 (14%)	27 (10%)	
II	102 (34%)	85 (30%)	
III	122 (40%)	132 (46%)	
IVA	35 (12%)	41 (14%)	
Unknown/missing	22 (−)	1 (−)	

Abbreviations: KPS: karnofsky performance status, FIGO: International Federation of Gynecology and Obstetrics.

Table 2
Pretreatment diagnostic procedure in the 1999–2001 and 2003–2005 survey periods.

Parameters	No. of patients (%)		
	1999–2001 (n=324	2003–2005 (n=285)	p
Chest radiography			0.0002
Yes	241 (97%)	191 (88%)	
No	7 (3%)	25 (12%)	
Unknown/missing	76 (−)	69 (−)	
Intravenous urography			<0.0001
Yes	176 (72%)	86 (42%)	
No	68 (28%)	118 (58%)	
Unknown/missing	80 (−)	81 (−)	
Cystoscopy			0.0005
Yes	171 (74%)	123 (58%)	
No	60 (26%)	88 (42%)	
Unknown/missing	93 (−)	74(−)	
Proctoscopy			0.027
Yes	108 (49%)	70 (34%)	
No	114 (51%)	134 (66%)	
Unknown/missing	102 (−)	81 (−)	
Barium enema			0.098
Yes	24 (11%)	14 (7%)	
No	193 (89%)	200 (93%)	
Unknown/missing	107 (−)	71 (−)	
Lymphangiography			0.71
Yes	3 (1%)	16 (9%)	
No	241 (99%)	171 (91%)	
Unknown/missing	80 (−)	98 (−)	
Surgical Staging			0.042
Yes	3 (1%)	10 (4%)	
No	257 (99%)	241 (96%)	
Unknown/missing	64 (−)	34 (−)	
Abdominal CT			0.053
Yes	258 (95%)	247 (98%)	
No	14 (5%)	5 (2%)	
Unknown/missing	52 (−)	33 (−)	
Pelvic CT			0.75
Yes	286 (97%)	255 (98%)	
No	8 (3%)	5 (2%)	
Unknown/missing	30 (−)	25 (−)	
Pelvic MRI			0.021
Yes	246 (86%)	234 (92%)	
No	39 (14%)	19 (8%)	
Unknown/missing	39 (−)	32 (−)	
FDG-PET			0.34
Yes	1 (0%)	0 (0%)	
No	254 (100%)	229 (100%)	
Unknown/missing	69 (−)	56 (−)	

Abbreviations: NA: not applicable.

between the two survey periods. Intravenous urography and cystoscopy were performed in approximately three-quarters of patients in the 1999–2001 survey, but only half of patients underwent these examinations in the 2003–2005 survey. The ratio of the patients who underwent proctoscopy also significantly decreased between the two survey periods. On the whole, the ratio of patients who underwent barium enema and lymphangiography was low in both the 1999–2001 and 2003–2005 surveys. Surgical staging was rarely performed in either survey. Almost all patients underwent abdominal and pelvic CT in both surveys, and the ratios were not significantly different in the two survey periods. The ratio of the patients who underwent pelvic MRI was already high in the 1999–2001 survey, but this ratio further increased significantly. The ratio of patients underwent fluorodeoxyglucose positron emission tomography (FDG-PET) was 0% in both the 1999–2001 and 2003–2005 surveys.

Table 3 shows the performance status of the pretreatment evaluation for the primary lesion and pelvic lymph nodes with a certain rate of unknown or missing data. Primary lesion size was not evaluated for a certain percentage of patients in both the 1999–2001 and 2003–2005 surveys (11% and 15%, respectively). MRI was the most common modality for evaluating primary lesion size in both surveys. Median tumor size in the 2003–2005 survey was larger than that in the 1999–2001 survey. Especially, the ratio of tumors >60 mm increased between the two survey periods (13% to 24%). Pelvic nodal status was evaluated in almost all patients in both surveys. CT was most frequently used for the assessment of nodal status in both the 1999–2001 and 2003–2005 surveys (86% and 89%, respectively).

Discussion

The present study demonstrated that the use of optional examinations in the updated FIGO guidelines such as intravenous urography, cystoscopy, and proctoscopy is gradually decreasing in Japan, as well as in the United States [4,8,9]. In the 2000–2002 US study on the pretreatment evaluation of patients with stage IIB or lower disease, the rates for performing intravenous urography, cystoscopy, and proctoscopy were only 1, 16, and 17%, respectively [9]. The National Comprehensive Cancer Network (NCCN) guideline also states that cystoscopy and proctoscopy are optional examinations for the pretreatment assessment of cervical cancer patients with a disease stage of IB2 or higher [10]. On the other hand, this study showed that these optional procedures were still often performed in the patients surveyed in Japan, although these are older data than the FIGO guidelines update. We think that, although cystoscopy and proctoscopy are not necessary for the pretreatment assessment of cervical cancer patients with a disease stage of IB1 or lower, those examinations with biopsy are required for patients with a disease stage of IB2 or higher on suspicion of bladder/rectum involvement on CT or MRI because only CT/MRI could lead to the stage migration. Surgical staging and lymphangiography were rarely performed in either survey period. Eifel et al. reported that lymph node status was assessed by lymphangiography in 13.6%, and surgical evaluation in 12.2%, in the 1996–1999 US PCS [5], and other studies revealed that the performance of lymphangiography has also been decreasing recently [4,8,9]. Lagasse et al. found lymphangiography to be unreliable as a basis for treatment decisions [11]. As for surgical staging, although the FIGO Committee agrees on its potential important benefits, cost-effectiveness is still a matter of investigation and debate in a disease that can be cured with the same efficacy by other non-surgical treatment modalities [2]. In addition, there is increased morbidity when surgical node dissection is combined with subsequent radiation therapy [12]. We think that these procedures were replaced by CT or MRI before we started to survey the pretreatment workup data on the Japanese PCS. We predict that the performance rates of intravenous urography, cystoscopy, and proctoscopy will also decrease further, to be replaced by CT or MRI as in the United States. The ratio of patients who underwent a chest X-ray decreased significantly between the two survey periods. We presume that chest X-rays may also be replaced with chest CT, which can be done with abdominal and pelvic CT at one time, although we did not examine the performance status of chest CT in the two surveys.

This study demonstrated that CT and MRI were routinely performed in Japan in both survey periods. In the 1990s, several researchers reported that tumor diameter, as assessed by MRI, significantly affected the outcome of cervical cancer patients treated with definitive radiotherapy [13,14]. Actually, the use of diagnostic imaging techniques to assess the size of the primary tumor is encouraged in the updated FIGO guidelines, and radiological tumor volume and parametrial invasion should be recorded for those institutions with access to MRI/CT [3]. This study showed that CT and MRI were already widely used before the revision of the FIGO guidelines in 2009, and pelvic MRI has become increasingly prevalent in Japanese clinical practice for cervical cancer even between the two survey periods. It is clear that the practice patterns of pretreatment workup in Japan and the USA are notable different than in areas which are less well developed. However, there is increasing availability of CT scanning in developing countries [9]. As CT and MRI techniques and training continue to develop, it is likely that accuracy for local staging will improve even further. Thus, we think that these cross-sectional diagnostic imaging will become more and more important to the pretreatment workup of cervical cancer. On the other hand, the use of CT or MRI is encouraged but still is not mandatory in the latest FIGO cervical cancer staging guidelines. As it stands now, it is important to record the staging method for each cervical cancer patient in any countries in order to avoid staging migration and to fairly compare treatment methods.

Primary lesion size was not evaluated for a certain percentage of patients in both surveys. As previously stated, since tumor size is an important prognostic factor for cervical cancer, it is necessary in clinical practice to evaluate the primary lesion size. MRI was the most common modality for evaluating primary lesion size in both surveys. On the other hand, a certain percentage of patients were had primary lesion size

Table 3
Pretreatment evaluation of the primary lesion and lymph node in the 1999–2001 and 2003–2005 survey periods.

Parameters	No. of patients (%)		
	1999–2001 (n=324)	2003–2005 (n=285)	p
Evaluation of primary lesion size			0.30
Yes	246 (89%)	202 (85%)	
No	29 (11%)	36 (15%)	
Evaluation method of primary lesion*			NA
Inspection and palpation	20 (8%)	20 (10%)	
CT	53 (22%)	81 (40%)	
MRI	152 (62%)	145 (72%)	
US	21 (8%)	65 (32%)	
Diameter of primary lesion (mm)			0.008
0–10	3 (1%)	0	
10–20	12 (6%)	10 (5%)	
20–30	33 (15%)	28 (15%)	
30–40	54 (25%)	25 (14%)	
40–50	52 (24%)	47 (25%)	
60 <	27 (13%)	45 (24%)	
Unknown/missing	110 (−)	97 (−)	
Median	45 (0–100)	50 (15–107)	
Evaluation of pelvic lymph node			0.024
Yes	271 (97%)	224 (90%)	
No	8 (3%)	24 (10%)	
Unknown/missing	45 (−)	37 (−)	
Evaluation method of pelvic lymph node*			NA
CT	233 (86%)	209 (89%)	
MRI	37 (14%)	136 (58%)	
US	0	7 (3%)	
Others	1 (0%)	3 (1%)	

Abbreviations: US: ultrasonography, NA: not applicable.
* Some patients overlap in the 2003–2005 column.