

continued

Institution

Mie University Hospital
 Minoh City Hospital
 Mito Red Cross Hospital
 Mitsui Memorial Hospital
 Murakami General Hospital
 Musashimurayama Hospital
 Nagahama City Hospital
 Nagano Red Cross Hospital
 Nagasaki University Hospital
 Nagayoshi General Hospital
 Nagoya City University Hospital
 Nagoya Daiichi Red Cross Hospital
 Nagoya University Hospital
 Nanpuh Hospital
 Nara Medical University Hospital
 National Cancer Center Hospital
 National Defense Medical College Hospital
 National Hospital Organization Chiba Medical Center
 National Hospital Organization Fukuoka-higashi Medical Center
 National Hospital Organization Hokkaido Cancer Center
 National Hospital Organization Iwakuni Medical Center
 National Hospital Organization Kure Medical Center
 National Hospital Organization Kyushu Cancer Center
 National Hospital Organization Matsumoto National Hospital
 National Hospital Organization Nagoya Medical Center
 National Hospital Organization Osaka National Hospital
 National Hospital Organization Sendai Medical Center
 National Hospital Organization Tokyo Medical Center
 Nihon University Itabashi Hospital
 Niigata Cancer Center Hospital
 Niigata City General Hospital
 Niigata Prefectural Shibata Hospital
 Niigata University Medical and Dental Hospital
 Nikko Memorial Hospital
 Nippon Medical School Chiba Hokusoh Hospital
 Nippon Medical School Hospital
 Nippon Medical School Musashi Kosugi Hospital
 Nippon Medical School Tama Nagayama Hospital
 Nishi-Kobe Medical Center
 Nishinomiya Municipal Central Hospital
 Nomura Medical Park Hospital
 NTT East Japan Kanto Hospital
 Numazu City Hospital
 Ohta General Hospital Foundation Ohta Nishinouchi Hospital
 Oita Red Cross Hospital
 Oita University Hospital
 Oizumi Gastrointestinal Medical Clinic
 Okayama Saiseikai General Hospital
 Okayama University Hospital
 Onomichi Municipal Hospital

continued

Institution

Osaka City General Medical Center
 Osaka City University Hospital
 Osaka Hospital of Japan Seafarers relief Association
 Osaka Koseinenkin Hospital
 Osaka Medical Center for Cancer and Cardiovascular Diseases
 Osaka Medical College Hospital
 Osaka Prefectural Hospital Organization Osaka General Medical Center
 Osaka Red Cross Hospital
 Otsu Red Cross Hospital
 Ryukyu University Hospital
 Saga University Hospital
 Saiseikai General Hospital
 Saiseikai Kyoto Hospital
 Saiseikai Utsunomiya Hospital
 Saitama City Hospital
 Saitama Medical Center
 Saitama Medical Center Jichi Medical University
 Saitama Medical University Hospital
 Saitama Medical University International Medical Center
 Saitama Prefectural Cancer Center
 Saitama Red Cross Hospital
 Saitama Social Insurance Hospital
 Sakai Municipal Hospital
 Saku Central Hospital
 Sanno Hospital
 Sano Kousei General Hospital
 Sato Clinic
 Sendai City Hospital
 Shiga Medical Center for Adults
 Shiga University of Medical Science Hospital
 Shikoku Cancer Center
 Shimane University Hospital
 Shimizu Welfare Hospital
 Shinshiro Municipal Hospital
 Shinshu University Hospital
 Shizuoka Cancer Center
 Shizuoka City Shimizu Hospital
 Shizuoka City Shizuoka Hospital
 Shizuoka General Hospital
 Showa University Hospital
 Showa University Northern Yokohama Hospital
 Showa University Toyosu Hospital
 Social Insurance Omuta Tenryo Hospital
 Social Insurance Tagawa Hospital
 Social Insurance Yokohama Central Hospital
 Sonoda Daiichi Hospital
 St. Luke's International Hospital
 Sugita Genpaku Memorial Obama Municipal Hospital
 Suita Municipal Hospital
 Takaoka Hospital

continued

Institution

- Takasago Municipal Hospital
- Tenri Hospital
- The Cancer Institute Hospital of JFCR
- The Jikei University Hospital
- Tochigi Cancer Center
- Toho University Omori Medical Center
- Toho University Sakura Medical Center
- Tohoku Kosai Hospital
- Tohoku University Hospital
- Tokai University Hachioji Hospital
- Tokai University Hospital
- Tokushima Red Cross Hospital
- Tokushima University Hospital
- Tokyo Medical and Dental University Hospital
- Tokyo Medical University Ibaraki Medical Center
- Tokyo Medical University Hospital
- Tokyo Metropolitan Cancer and Infectious Center
Komagome Hospital
- Tokyo Metropolitan Health and Medical
Corporation Toshima Hospital
- Tokyo University Hospital
- Tokyo Women's Medical University Hospital
- Tokyo Women's Medical University Medical Center East
- Tonan Hospital
- Toranomon Hospital
- Tottori Prefectural Central Hospital
- Tottori University Hospital
- Toyama Prefectural Central Hospital
- Toyama University Hospital
- Tsuchiura Kyodo Hospital
- Tsukuba University Hospital
- University Hospital, Kyoto Prefectural
University of Medicine
- University of Miyazaki Hospital
- Yamagata Prefectural and Sakata
Municipal Hospital Organization
- Yamagata Prefectural Central Hospital
- Yamagata Prefectural Shinjo Hospital
- Yamagata University Hospital
- Yamaguchi-ken Saiseikai Shimonoseki General Hospital
- Yamaguchi University Hospital
- Yamanashi Prefectural Central Hospital
- Yamanashi University Hospital
- Yao Municipal Hospital
- Yatsu Hoken Hospital
- Yokohama City Municipal Hospital
- Yokohama City University Hospital
- Yokohama City University Medical Center
- Yuri General Hospital

(Total 237 institutions)

Patient background

Table 1 Age and gender

*Excluding 40 missing cases of gender

Age	Male	Female	Unknown	Cases (%)	
~29	8	1	0	9	(0.2%)
30~39	10	4	0	14	(0.3%)
40~49	123	25	0	148	(3.3%)
50~59	842	139	0	981	(21.9%)
60~69	1535	226	1	1762	(39.4%)
70~79	1168	154	3	1325	(29.6%)
80~89	179	44	0	223	(5.0%)
90~	10	4	0	14	(0.3%)
Total	3875	597	4	4476	
Missing	25	6	0	31	

Table 11 Types of primary treatment

Treatments	Cases (%)
Surgery	2607 (57.7%)
Esophagectomy	2456 (54.3%)
Palliative	151 (3.3%)
Chemotherapy/Radiotherapy	1178 (26.1%)
Endoscopic treatment	477 (10.5%)
others	46 (1.0%)
None/Unknown	214 (4.7%)
Total	4522
Missing	25

Table 12 Tumor location

* Excluding 293 treatment unknown, other, and missing cases of treatment types

Location of tumor	Cases (%)	
Cervical	204	(4.8%)
Upper thoracic	570	(13.4%)
Middle thoracic	1993	(46.9%)
Lower thoracic	1178	(27.7%)
Abdominal	195	(4.6%)
EG	35	(0.8%)
EG-Junction(E=G)	28	(0.7%)
Cardia (G)	3	(0.1%)
Others	0	(0.0%)
Unknown	41	(1.0%)
Total	4247	
Missing	7	

Table 15 Histologic types of biopsy specimens

* Excluding 285 treatment unknown, other, and missing cases of treatment types

Histologic types	Total (%)	
Not examined	39	(0.9%)
SCC	3891	(91.4%)
SCC	2360	(55.5%)
Well diff.	345	(8.1%)
Moderately diff.	882	(20.7%)
Poorly diff.	304	(7.1%)
Adenocarcinoma	155	(3.6%)
Undifferentiated	20	(0.5%)
Carcinosarcoma	13	(0.3%)
Malignant melanoma	8	(0.2%)
Other tumors	34	(0.8%)
Dysplasia	0	(0.0%)
Unknown	95	(2.2%)
Total	4255	
Missing	7	

Table 16 Depth of tumor invasion, cT (UICC TNM 6th)

* Excluding 285 treatment unknown, other, and missing cases of treatment types

cT	Total (%)	
cTX	16	(0.4%)
cT0	9	(0.2%)
cTis	89	(2.1%)
cT1	185	(4.4%)
cT1a	420	(9.9%)
cT1b	699	(16.4%)
cT2	542	(12.7%)
cT3	1635	(38.5%)
cT4	544	(12.8%)
Unknown	112	(2.6%)
Total	4252	
Missing	10	

Table 17 Lymph node metastasis, cN (UICC TNM 6th)

* Excluding 285 treatment unknown, other, and missing cases of treatment types

cN	Total (%)	
cNX	65	(1.5%)
cN0	1946	(45.8%)
cN1	2115	(49.7%)
Unknown	126	(3.0%)
Total	4252	
Missing	10	

Table 18 Distant metastasis, cM (UICC TNM 6th)

* Excluding 285 treatment unknown, other, and missing cases of treatment types

cM	Total (%)	
cMX	35	(0.8%)
cM0	3530	(83.0%)
cM1	152	(3.6%)
cM1a	108	(2.5%)
cM1b	333	(7.8%)
Unknown	94	(2.2%)
Total	4252	
Missing	10	

Table 20 Clinical stage (UICC TNM 6th)

* Excluding 285 treatment unknown, other, and missing cases of treatment types

cStage	Endoscopic treatment (%)		Chemotherapy and/or radiotherapy (%)		Surgery			Total (%)		
					Palliative surgery (%)		Esophagectomy (%)			
0	66	(13.9%)	4	(0.3%)	2	(1.3%)	13	(0.5%)	85	(2.0%)
I	357	(75.0%)	146	(12.4%)	26	(17.3%)	574	(23.4%)	1103	(25.9%)
IIA	1	(0.2%)	131	(11.1%)	28	(18.7%)	465	(19.0%)	625	(14.7%)
IIB	5	(1.1%)	82	(7.0%)	13	(8.7%)	291	(11.9%)	391	(9.2%)
III	5	(1.1%)	398	(33.9%)	55	(36.7%)	797	(32.5%)	1255	(29.5%)
IV	2	(0.4%)	101	(8.6%)	4	(2.7%)	33	(1.3%)	140	(3.3%)
IVA	1	(0.2%)	51	(4.3%)	3	(2.0%)	52	(2.1%)	107	(2.5%)
IVB	4	(0.8%)	173	(14.7%)	7	(4.7%)	131	(5.3%)	315	(7.4%)
Unknown	35	(7.4%)	89	(7.6%)	12	(8.0%)	95	(3.9%)	231	(5.4%)
Total	476		1175		150		2451		4252	
Missing	1		3		1		5		10	

II. Clinical results of patients treated endoscopically in 2005

Table 22 Treatment details in patients receiving endoscopy

Treatment details	Cases (%)	
EMR	266	(55.9%)
EMR + YAG laser / APC	6	(1.3%)
EMR + ESD	1	(0.2%)
ESD	181	(38.0%)
ESD + other treatment	1	(0.2%)
PDT	1	(0.2%)
PDT + Esophageal stent	1	(0.2%)
YAG laser / APC	2	(0.4%)
Esophageal stent	14	(2.9%)
Tracheal stent	0	(0.0%)
Esophageal stenting + tracheal stenting	2	(0.4%)
Others	1	(0.2%)
Total	476	
Missing	1	

EMR: endoscopic mucosal resection, ESD: endoscopic submucosal dissection, PDT: photodynamic therapy, YAG: yttrium aluminum garnet, APC: Argon plasma coagulation, MCT: microwave coagulation therapy, RFA: Radiofrequency ablation

* "Esophageal stenting + tracheal stenting + other (PEG)" case is included in "Esophageal stenting + tracheal stenting".

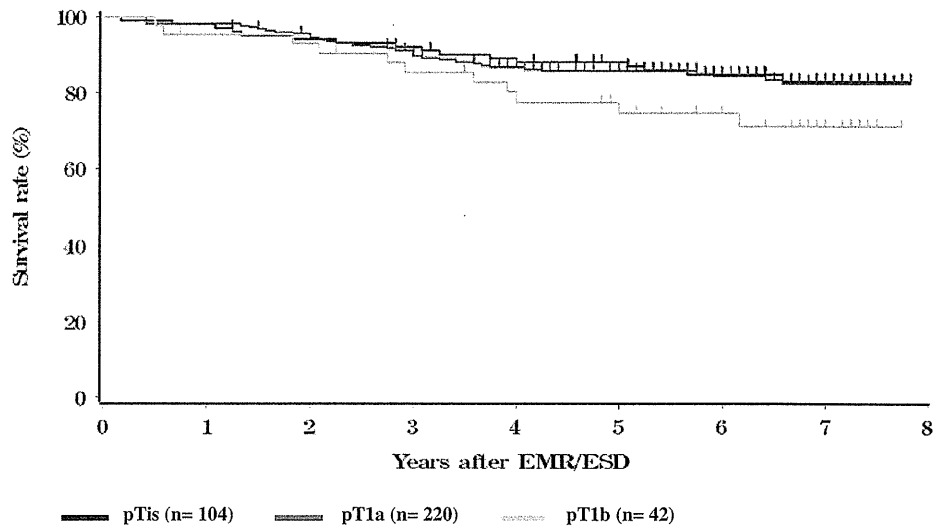
Table 26 Complications of EMR/ESD

Complications of EMR/ESD	Cases (%)	
None	428	(94.1%)
Perforation	9	(2.0%)
Bleeding	0	(0.0%)
Mediastinitis	0	(0.0%)
Stenosis	13	(2.9%)
Perforation+Mediastinitis	0	(0.0%)
Perforation+Stenosis	0	(0.0%)
Perforation+Mediastinitis+Stenosis	0	(0.0%)
Others	5	(1.1%)
Unknown	0	(0.0%)
Total	455	
Missing	1	

Table 30 Depth of tumor invasion of EMR/ESD specimens

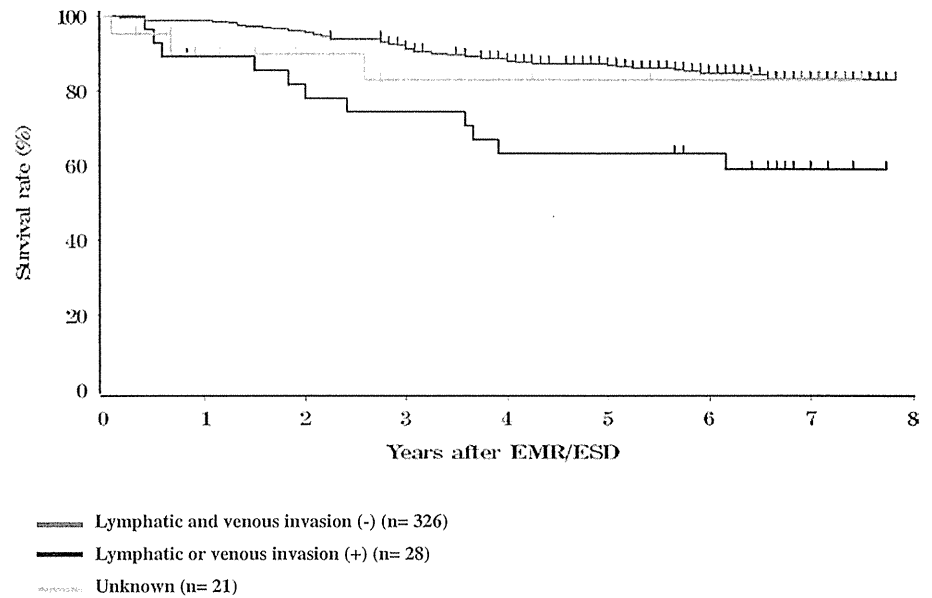
Complications of EMR/ESD	Cases (%)	
None	428	(94.1%)
Perforation	9	(2.0%)
Bleeding	0	(0.0%)
Mediastinitis	0	(0.0%)
Stenosis	13	(2.9%)
Perforation+Mediastinitis	0	(0.0%)
Perforation+Stenosis	0	(0.0%)
Perforation+Mediastinitis+Stenosis	0	(0.0%)
Others	5	(1.1%)
Unknown	0	(0.0%)
Total	455	
Missing	1	

Fig. 3 Survival of patients treated by EMR/ESD in relation to the pathological depth of tumor invasion (pT), pTis (n = 104) pT1a (n = 220) pT1b (n = 42)



	Years after EMR/ESD							
	1	2	3	4	5	6	7	8
pTis	98.0%	94.1%	92.1%	89.1%	88.1%	84.7%	83.0%	83.0%
pT1a	98.2%	94.4%	91.1%	86.7%	85.7%	84.3%	82.5%	82.5%
pT1b	95.2%	92.8%	85.3%	80.2%	74.6%	74.6%	71.1%	71.1%

Fig. 4 Survival of patients treated by EMR/ESD in relation to the lymphatic or venous invasion, Lymphatic and venous invasion (-) (n = 326), Lymphatic or venous invasion (+) (n = 28), Unknown (n = 21)



	Years after EMR/ESD							
	1	2	3	4	5	6	7	8
Lymphatic and venous invasion (-)	98.8%	95.6%	92.2%	88.7%	86.9%	84.9%	83.1%	83.1%
Lymphatic or venous invasion (+)	89.3%	78.1%	74.4%	63.2%	63.2%	63.2%	59.0%	59.0%
Unknown	89.9%	89.9%	83.0%	83.0%	83.0%	83.0%	83.0%	83.0%

III. Clinical results in patients treated with chemotherapy and/or radiotherapy in 2005

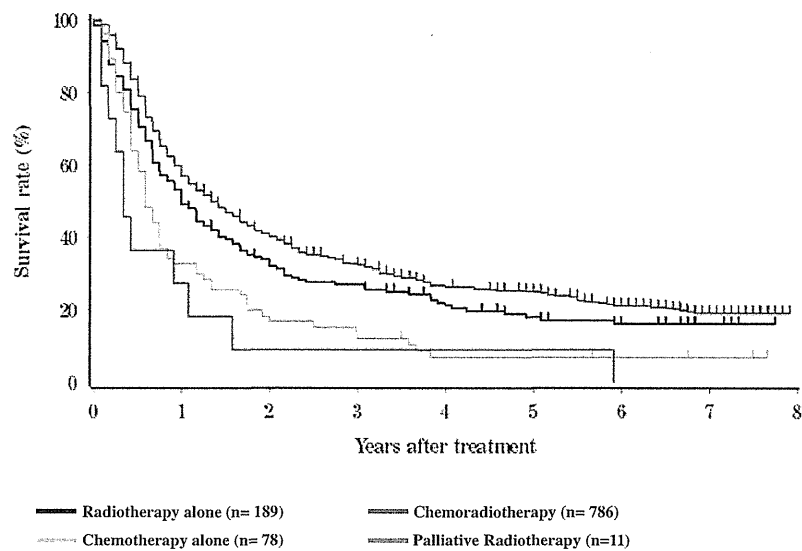
Table 33 Dose of irradiation (non-surgically treated cases)

Dose of irradiation (Gy)	Radiotherapy		Palliative (%)	Recurrence (%)	Others (%)	Total (%)
	alone (%)	with chemotherapy (%)				
0	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0	0 (0.0%)
-29	3 (0.9%)	1 (1.4%)	9 (11.7%)	1 (7.7%)	0	14 (2.8%)
30-39	8 (2.4%)	1 (1.4%)	10 (13.0%)	0 (0.0%)	0	19 (3.8%)
40-49	13 (3.9%)	4 (5.6%)	5 (6.5%)	2 (15.4%)	0	24 (4.8%)
50-59	46 (13.7%)	5 (6.9%)	11 (14.3%)	3 (23.1%)	0	65 (13.1%)
60-69	261 (77.7%)	50 (69.4%)	32 (41.6%)	7 (53.8%)	0	350 (70.3%)
70-	5 (1.5%)	11 (15.3%)	10 (13.0%)	0 (0.0%)	0	26 (5.2%)
Total	336	72	77	13	0	498
Median (min - max)	60 (1.8 - 70.2)	60 (22 - 70.2)	60 (2 - 76.8)	60 (20 - 67.6)	-	60 (1.8 - 70.6)
Missing	5	0	8	0	1	14

Table 34 Dose of irradiation (surgically treated cases)

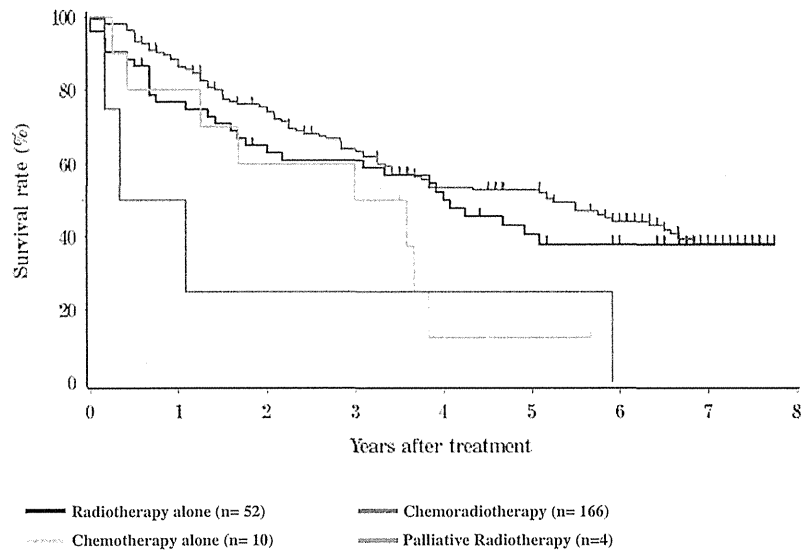
Dose of irradiation (Gy)	Preope RT (%)	Postope RT (%)
0	0 (0.0%)	0 (0.0%)
-29	3 (1.6%)	1 (1.6%)
30-39	61 (31.6%)	10 (15.9%)
40-49	106 (54.9%)	12 (19.0%)
50-59	7 (3.6%)	16 (25.4%)
60-69	14 (7.3%)	23 (36.5%)
70-	2 (1.0%)	1 (1.6%)
Total	193	63
Median (min - max)	40 (20 - 70)	50 (20 - 70)
Missing	10	7

Fig. 5 Survival of patients treated by chemotherapy and/or radiotherapy, Radiotherapy alone (n = 189), Chemoradiotherapy (n = 786), Chemotherapy alone (n = 78), Palliative Radiotherapy (n = 11)



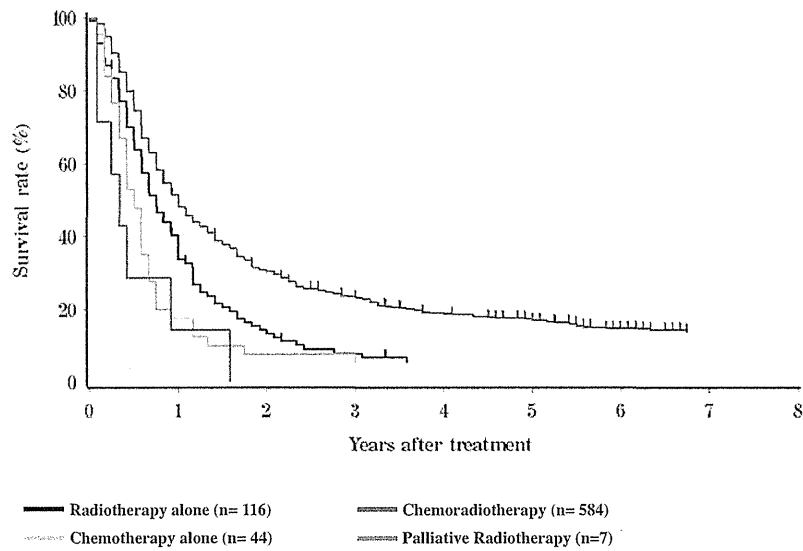
	Years after treatment							
	1	2	3	4	5	6	7	8
Radiotherapy alone	49.0%	31.9%	26.9%	21.9%	18.0%	16.1%	16.1%	16.1%
Chemoradiotherapy	56.8%	40.0%	32.6%	26.7%	24.9%	21.1%	19.0%	19.0%
Chemotherapy alone	32.6%	16.7%	13.7%	6.9%	6.9%	6.9%	6.9%	6.9%
Palliative Radiotherapy	27.3%	9.1%	-	-	-	-	-	-

Fig. 6 Survival of patients treated by chemotherapy and/or radiotherapy (cStage I-IIA), Radiotherapy alone (n = 52), Chemoradiotherapy (n = 166), Chemotherapy alone (n = 10), Palliative Radiotherapy (n = 4)



	1	2	3	4	5	6	7	8
Radiotherapy alone	76.7%	62.9%	60.8%	52.2%	40.5%	38.0%	38.0%	38.0%
Chemoradiotherapy	86.4%	74.1%	64.0%	53.5%	52.7%	44.1%	38.1%	38.1%
Chemotherapy alone	80.0%	60.0%	50.0%	12.5%	12.5%	12.5%	-	-
Palliative Radiotherapy	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	-	-

Fig. 7 Survival of patients treated by chemotherapy and/or radiotherapy (cStage IIB-IVB), Radiotherapy alone (n = 116), Chemoradiotherapy (n = 584), Chemotherapy alone (n = 44), Palliative Radiotherapy (n = 7)



	Years after treatment							
	1	2	3	4	5	6	7	8
Radiotherapy alone	33.6%	13.3%	7.9%	5.4%	5.4%	5.4%	5.4%	5.4%
Chemoradiotherapy	48.1%	30.4%	23.4%	18.9%	16.9%	14.6%	13.5%	-
Chemotherapy alone	17.6%	7.5%	7.5%	5.0%	5.0%	5.0%	5.0%	-
Palliative Radiotherapy	14.3%	0.0%	-	-	-	-	-	-

IV. Clinical results in patients treated by esophagectomy in 2005

Table 42 Tumor location

Locations	Cases (%)
Cervical	89 (3.6%)
Upper thoracic	298 (12.2%)
Middle thoracic	1081 (44.2%)
Lower thoracic	765 (31.3%)
Abdominal	149 (6.1%)
EG	29 (1.2%)
EG-Junction (E=G)	22 (0.9%)
Unknown	10 (0.4%)
Total	2443
Missing	13

EG:
esophago-gastric

Table 43 Approaches to tumor resection

Approaches	Cases (%)
Cervical approach	63 (2.6%)
Right thoracotomy	2023 (82.6%)
Left thoracotomy	45 (1.8%)
Left thoracoabdominal approach	52 (2.1%)
Laparotomy	101 (4.1%)
Transhiatal lower esophagectomy	65 (2.7%)
Transhiatal thoracic esophagectomy	32 (1.3%)
Sternotomy	7 (0.3%)
Others	53 (2.2%)
Unknown	8 (0.3%)
Total	2449
Missing	7

Table 44 Endoscopic surgery

Endoscopic surgery	Cases (%)
None	1911 (79.0%)
Thoracoscopy-assisted	245 (10.1%)
Laparoscopy-assisted	97 (4.0%)
Thoracoscopy + Laparoscopy-assisted	136 (5.6%)
Mediastinoscopy-assisted	24 (1.0%)
Thoracoscopy + Mediastinoscopy-assisted	1 (0.0%)
Thoracoscopy + Laparoscopy + Mediastinoscopy-assisted	3 (0.1%)
Others	0 (0.0%)
Unknown	1 (0.0%)
Total	2418
Missing	38

Table 45 Fields of lymph node dissection according to the location of the tumor

* Excluding pharynx and missing 20 cases of locations

Locations	Cervical	Upper thoracic	Middle thoracic	Lower thoracic	Abdominal	EGJ	Total
Region of lymphadenectomy	Cases (%)	Cases (%)	Cases (%)	Cases (%)	Cases (%)	Cases (%)	Cases (%)
None	10 (11.4%)	10 (3.4%)	30 (2.8%)	28 (3.7%)	5 (3.3%)	0 (0.0%)	83 (3.4%)
C	27 (30.7%)	4 (1.4%)	3 (0.3%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	35 (1.5%)
C+UM	14 (15.9%)	2 (0.7%)	2 (0.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (0.7%)
C+UM+MLM	4 (4.5%)	3 (1.0%)	12 (1.1%)	11 (1.4%)	0 (0.0%)	0 (0.0%)	30 (1.2%)
C+UM+MLM+A	21 (23.9%)	179 (61.1%)	553 (51.8%)	291 (38.3%)	7 (4.6%)	1 (0.7%)	1052 (43.7%)
C+UM+A	2 (2.3%)	1 (0.3%)	0 (0.0%)	3 (0.4%)	0 (0.0%)	0 (0.0%)	6 (0.2%)
C+MLM	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	1 (0.0%)
C+MLM+A	1 (1.1%)	0 (0.0%)	2 (0.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (0.1%)
C+A	4 (4.5%)	1 (0.3%)	4 (0.4%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	10 (0.4%)
UM	0 (0.0%)	2 (0.7%)	9 (0.8%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	12 (0.5%)
UM+MLM	0 (0.0%)	5 (1.7%)	13 (1.2%)	11 (1.4%)	0 (0.0%)	0 (0.0%)	29 (1.2%)
UM+MLM+A	3 (3.4%)	73 (24.9%)	378 (35.4%)	290 (38.2%)	48 (31.8%)	9 (6.0%)	801 (33.2%)
UM+A	0 (0.0%)	1 (0.3%)	3 (0.3%)	4 (0.5%)	2 (1.3%)	0 (0.0%)	10 (0.4%)
MLM	0 (0.0%)	0 (0.0%)	3 (0.3%)	6 (0.8%)	0 (0.0%)	2 (1.3%)	11 (0.5%)
MLM+A	0 (0.0%)	9 (3.1%)	39 (3.7%)	93 (12.2%)	67 (44.4%)	28 (18.5%)	236 (9.8%)
A	0 (0.0%)	2 (0.7%)	12 (1.1%)	18 (2.4%)	22 (14.6%)	10 (6.6%)	64 (2.7%)
Unknown	2 (2.3%)	1 (0.3%)	5 (0.5%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	9 (0.4%)
Total	88	293	1068	760	151	50	2410
Missing	1	5	13	5	1	1	26

Table 47 Reconstruction route

Reconstruction route	Cases (%)
None	41 (1.7%)
Subcutaneous	285 (11.7%)
Anterior mediastinal	868 (35.6%)
Intrathoracic	369 (15.1%)
Posterior mediastinal	828 (33.9%)
Cervical	23 (0.9%)
Others	18 (0.7%)
Unknown	9 (0.4%)
Total	2441
Missing	15

Table 48 Organs used for reconstruction

Organs used for reconstruction	Cases (%)
None	50 (2.0%)
Whole stomach	101 (4.0%)
Gastric tube	2002 (78.5%)
Jejunum	118 (4.6%)
Free jejunum	37 (1.5%)
Colon	112 (4.4%)
Free colon	13 (0.5%)
Skin graft	1 (0.0%)
Others	114 (4.5%)
Unknown	3 (0.1%)
Total lesions	2551
Total cases	2450
Missing	6

Table 55 Histological classification

Histological classification	Cases (%)	
Not examined	2	(0.1%)
SCC	2181	(89.8%)
SCC	370	(15.2%)
Well diff.	478	(19.7%)
Moderately diff.	957	(39.4%)
Poorly diff.	376	(15.5%)
Adenocarcinoma	81	(3.3%)
Barrett's adenocarcinoma	34	(1.4%)
Adenosquamous cell carcinoma	14	(0.6%)
(Co-existing)	1	(0.0%)
(Mucoepidermoid carcinoma)	1	(0.0%)
Adenoid cystic carcinoma	1	(0.0%)
Basaloid carcinoma	30	(1.2%)
Undiff. carcinoma (small cell)	9	(0.4%)
Undiff. carcinoma	6	(0.2%)
Other carcinoma	2	(0.1%)
Sarcoma	1	(0.0%)
Carcinosarcoma	19	(0.8%)
Malignant melanoma	8	(0.3%)
Dysplasia	1	(0.0%)
Other	18	(0.7%)
Unkown	20	(0.8%)
Total	2429	
Missing	27	

SCC: Squamous cell carcinoma

Table 56 Depth of tumor invasion

pT-category	Cases (%)	
pTX	9	(0.4%)
pT0	30	(1.2%)
pTis	40	(1.6%)
pT1a	209	(8.6%)
pT1b	547	(22.5%)
pT2	359	(14.8%)
pT3	1053	(43.4%)
pT4	158	(6.5%)
Other	0	(0.0%)
Unknown	23	(0.9%)
Total	2428	
Missing	28	

Table 58 Pathological grading of lymph node metastasis (JSED TNM 9th)

Lymph node metastasis	Cases (%)	
pT0	1230	(51.4%)
pT1	309	(12.9%)
pT2	495	(20.7%)
pT3	179	(7.5%)
pT4	143	(6.0%)
Unknown	39	(1.6%)
Total	2395	
Missing	61	

Table 59 Numbers of the metastatic nodes

Numbers of lymph node metastasis	Cases (%)	
0	1059	(44.2%)
1-2	629	(26.3%)
3-6	455	(19.0%)
7-	252	(10.5%)
Total	2395	
Missing	61	

Table 60 Pathological findings of distant organ metastasis

Distant metastasias (M)	Cases (%)	
MX	26	(1.1%)
M0	2319	(96.6%)
M1	56	(2.3%)
Total	2401	
Missing	7	

Table 61 Residual tumor

Residual tumor (R)	Cases (%)	
RX	172	(7.1%)
R0	2002	(83.0%)
R1	137	(5.7%)
R2	102	(4.2%)
Total	2413	
Missing	43	

Table 72 Causes of death

* As of August 31, 2010

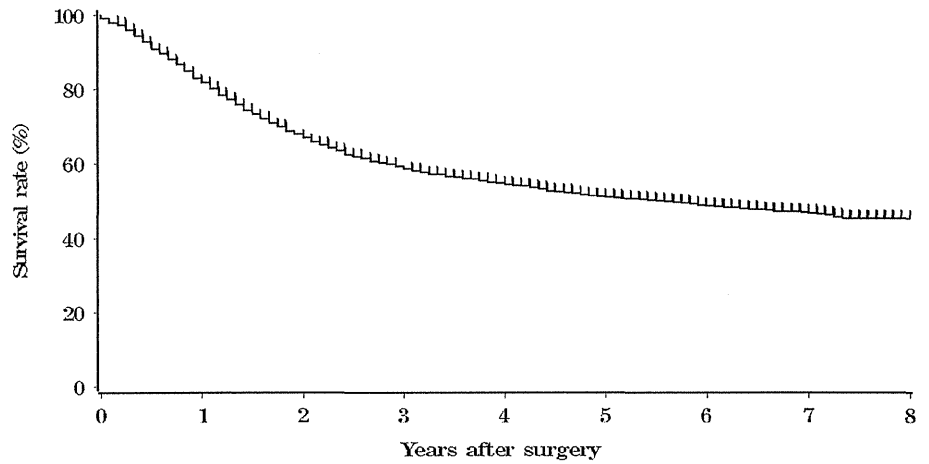
Cause of death	Cases (%)
Death due to recurrence	817 (72.2%)
Death due to other cancer	53 (4.7%)
Death due to other disease (rec+)	23 (2.0%)
Death due to other disease (rec-)	121 (10.7%)
Death due to other disease (rec?)	4 (0.4%)
Operative death*	32 (2.8%)
Postoperative hospital death**	41 (3.6%)
Unknown	41 (3.6%)
Total of death cases	1132
Missing	8

rec: recurrence

* Death within 30 days, **Death after 30 days

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

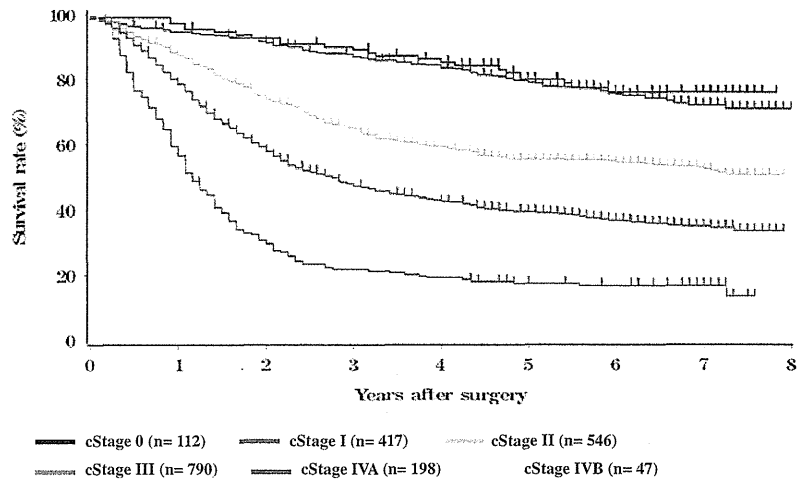
Fig. 8 Survival of patients treated by esophagectomy



— Esophagectomy (n= 2195)

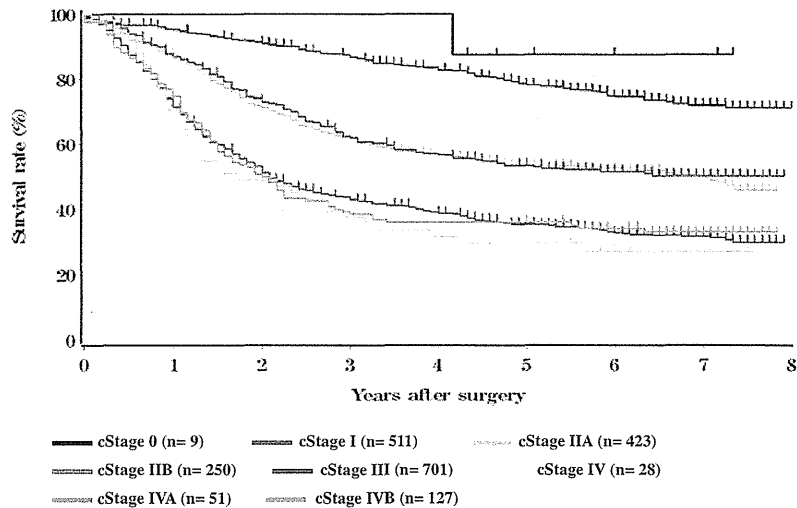
	Years after surgery							
	1	2	3	4	5	6	7	8
Esophagectomy	81.9%	67.0%	59.2%	54.8%	50.9%	48.7%	46.7%	45.2%

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



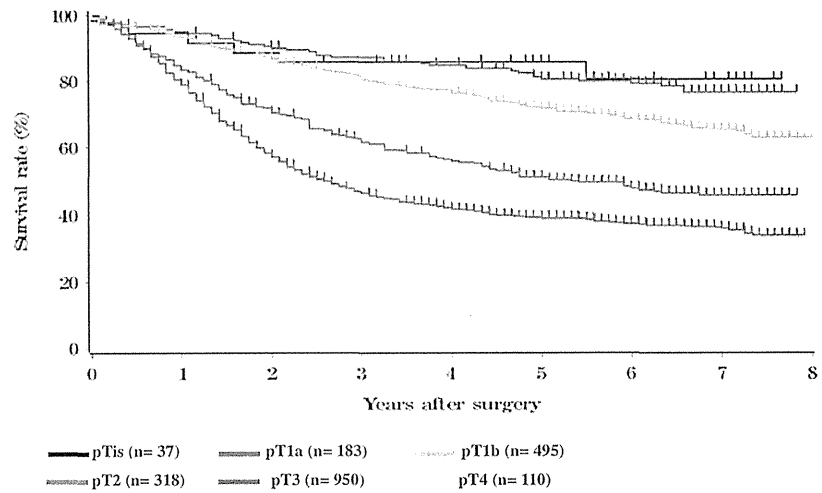
	Years after surgery							
	1	2	3	4	5	6	7	8
cStage 0	97.3%	92.7%	89.0%	86.1%	79.8%	75.9%	75.9%	75.9%
cStage I	94.7%	91.2%	87.7%	84.4%	78.9%	75.2%	72.0%	71.0%
cStage II	87.4%	73.8%	65.1%	59.4%	55.3%	54.6%	52.6%	50.7%
cStage III	78.4%	57.9%	48.0%	42.9%	39.4%	36.7%	34.9%	33.5%
cStage IVA	56.5%	29.7%	21.7%	19.1%	17.4%	16.7%	16.7%	13.3%
cStage IVB	39.5%	19.7%	15.3%	8.8%	8.8%	8.8%	8.8%	-

Fig. 10 Survival of patients treated by esophagectomy in relation to clinical stage (UICC TNM 6th)



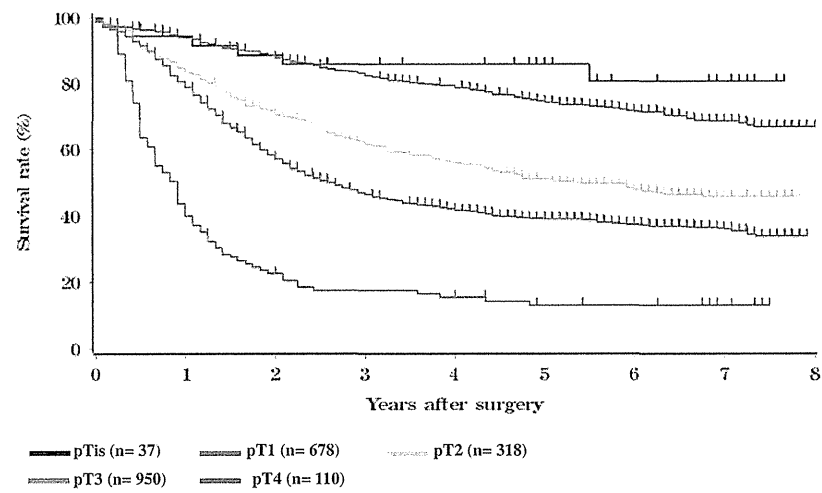
	Years after surgery							
	1	2	3	4	5	6	7	8
cStage 0	87.5%	87.5%	87.5%	87.5%	87.5%	87.5%	87.5%	87.5%
cStage I	95.3%	91.0%	87.3%	83.6%	78.1%	74.5%	71.9%	71.1%
cStage IIA	87.8%	71.4%	61.9%	57.1%	53.2%	52.6%	49.5%	45.6%
cStage IIB	87.0%	72.9%	62.4%	56.9%	53.3%	51.4%	50.0%	-
cStage III	71.6%	51.2%	43.5%	38.9%	35.4%	32.7%	31.5%	29.7%
cStage IV	44.7%	33.5%	26.1%	18.6%	18.6%	18.6%	-	-
cStage IVA	70.6%	49.0%	37.3%	31.4%	29.4%	27.0%	27.0%	-
cStage IVB	74.6%	49.8%	39.2%	35.9%	35.9%	34.1%	32.8%	-

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



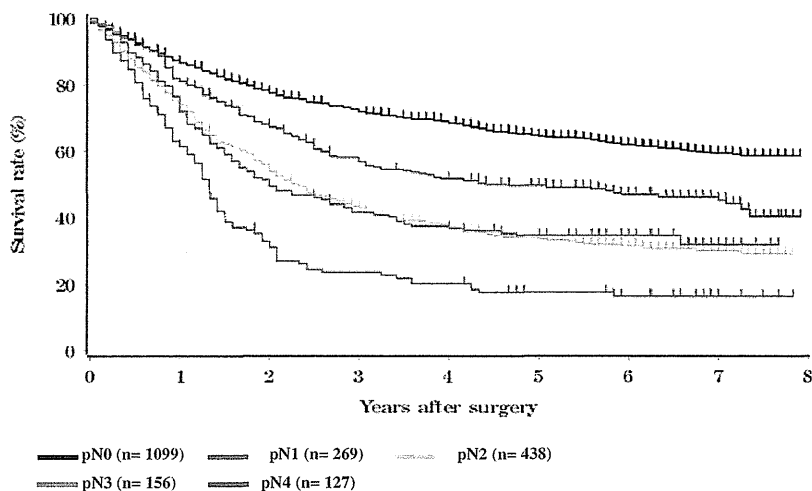
	Years after surgery							
	1	2	3	4	5	6	7	8
pTis	94.4%	88.6%	85.7%	85.7%	85.7%	80.6%	80.6%	-
pT1a	95.1%	90.0%	87.2%	84.9%	80.7%	79.3%	76.6%	76.6%
pT1b	93.5%	86.8%	81.5%	77.4%	71.9%	68.6%	65.5%	63.0%
pT2	83.5%	70.6%	62.7%	56.3%	51.1%	47.9%	45.8%	-
pT3	78.9%	57.2%	47.0%	42.1%	39.0%	37.3%	35.9%	33.8%
pT4	39.9%	22.5%	17.4%	15.3%	13.0%	13.0%	13.0%	-

Fig. 12 Survival of patients treated by esophagectomy in relation to the depth of tumor invasion: pT (UICC TNM 6th)



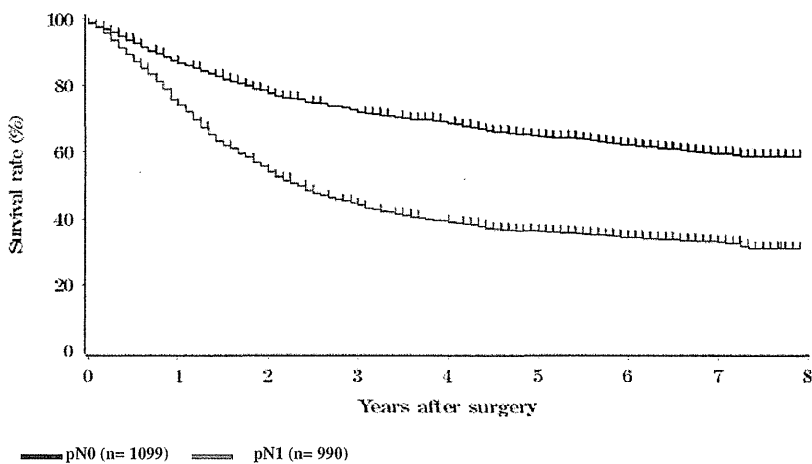
	Years after surgery							
	1	2	3	4	5	6	7	8
pTis	94.4%	88.6%	85.7%	85.7%	85.7%	80.6%	80.6%	-
pT1	93.9%	87.7%	83.0%	79.5%	74.3%	71.5%	68.5%	66.7%
pT2	83.5%	70.6%	62.7%	56.3%	51.1%	47.9%	45.8%	-
pT3	78.9%	57.2%	47.0%	42.1%	39.0%	37.3%	35.9%	33.8%
pT4	39.9%	22.5%	17.4%	15.3%	13.0%	13.0%	13.0%	-

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



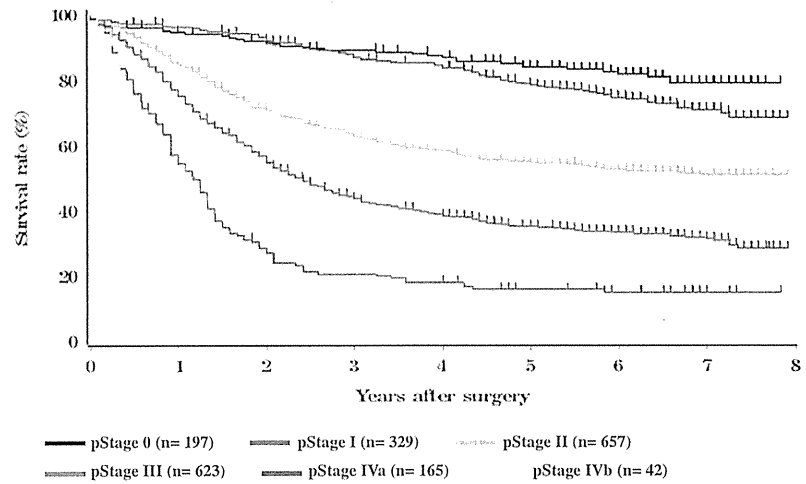
	Years after surgery							
	1	2	3	4	5	6	7	8
pN0	86.8%	77.7%	72.6%	69.1%	64.6%	62.0%	59.4%	58.7%
pN1	81.3%	67.7%	58.2%	51.7%	49.6%	47.0%	45.3%	40.2%
pN2	74.1%	54.0%	43.6%	37.9%	33.5%	31.4%	30.0%	29.1%
pN3	72.1%	49.4%	41.4%	37.4%	34.5%	34.5%	31.9%	31.9%
pN4	61.5%	31.0%	23.5%	20.1%	17.5%	16.4%	16.4%	16.4%

Fig. 14 Survival of patients treated by esophagectomy in relation to lymph node metastasis: pN (UICC TNM 6th)



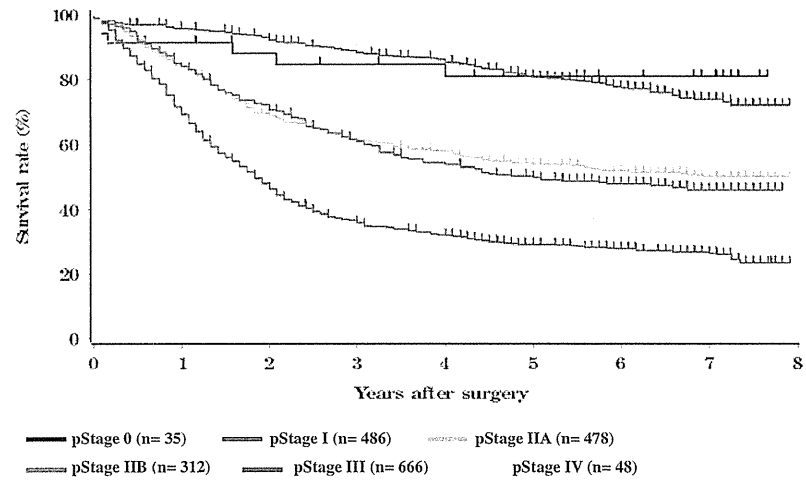
	Years after surgery							
	1	2	3	4	5	6	7	8
pN0	86.8%	77.7%	72.6%	69.1%	64.6%	62.0%	59.4%	58.7%
pN1	74.1%	54.1%	44.6%	39.3%	36.0%	34.2%	32.7%	30.8%

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



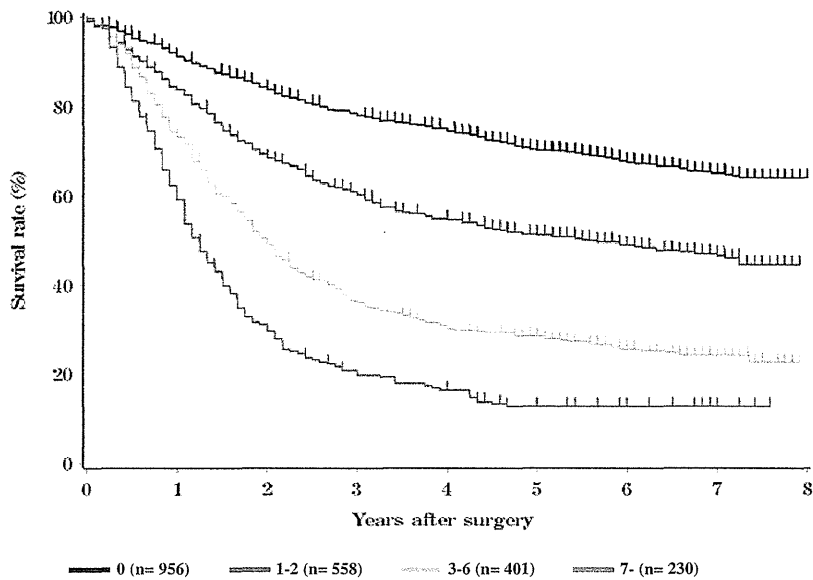
	Years after surgery							
	1	2	3	4	5	6	7	8
pStage 0 (n= 197)	94.4%	91.2%	89.0%	87.3%	83.8%	81.7%	79.0%	79.0%
pStage I (n= 329)	96.0%	91.9%	87.7%	84.5%	78.4%	74.6%	71.0%	68.5%
pStage II (n= 657)	84.6%	71.1%	63.6%	58.7%	54.7%	52.7%	51.0%	51.0%
pStage III (n= 623)	75.1%	54.7%	44.3%	38.7%	34.9%	33.2%	31.2%	28.2%
pStage IVa (n= 165)	54.6%	27.0%	20.4%	17.8%	15.6%	14.7%	14.7%	14.7%
pStage IVb (n= 42)	41.5%	19.5%	17.1%	9.8%	9.8%	9.8%	9.8%	-

Fig. 16 Survival of patients treated by esophagectomy in relation to pathological stage (UICC TNM 6th)



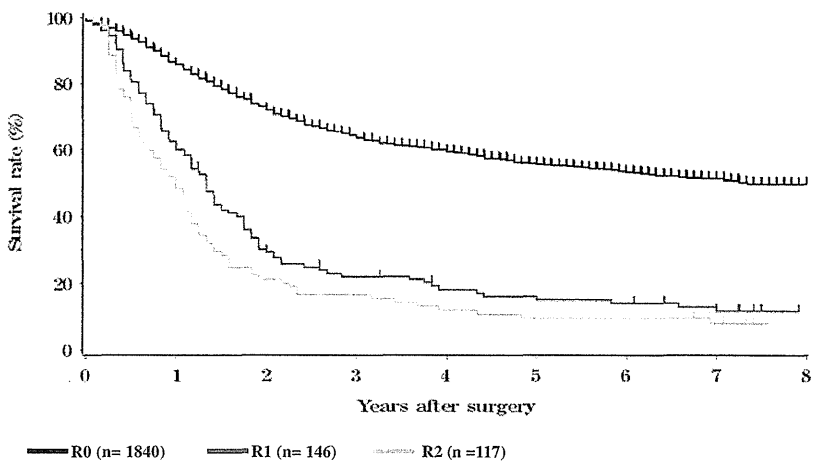
	Years after surgery							
	1	2	3	4	5	6	7	8
pStage 0 (n= 35)	91.3%	87.9%	84.5%	84.5%	80.8%	80.8%	80.8%	80.8%
pStage I (n= 486)	95.6%	92.0%	88.8%	85.9%	80.7%	77.2%	73.7%	71.9%
pStage IIA (n= 478)	83.7%	68.9%	62.0%	58.0%	53.8%	51.9%	50.1%	50.1%
pStage IIB (n= 312)	83.9%	70.8%	61.5%	54.4%	49.8%	47.8%	45.9%	45.9%
pStage III (n= 666)	69.2%	46.2%	36.5%	32.0%	29.1%	27.6%	26.3%	23.4%
pStage IV (n= 48)	38.4%	17.1%	14.9%	8.5%	8.5%	8.5%	8.5%	-

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



	Years after surgery							
	1	2	3	4	5	6	7	8
0 (n= 956)	91.0%	83.7%	78.4%	75.1%	70.3%	67.7%	65.1%	64.0%
1-2 (n= 558)	83.7%	68.5%	60.9%	54.9%	51.3%	48.9%	46.6%	44.5%
3-6 (n= 401)	73.2%	48.9%	36.6%	30.9%	28.4%	25.5%	24.2%	22.7%
7- (n= 230)	59.2%	29.6%	20.8%	16.3%	12.6%	12.6%	12.6%	12.6%

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



	Years after surgery							
	1	2	3	4	5	6	7	8
R0 (n= 1840)	85.8%	72.7%	64.2%	59.1%	56.1%	53.8%	49.0%	46.8%
R1 (n= 146)	58.1%	34.4%	24.6%	22.3%	17.2%	15.4%	14.3%	14.3%
R2 (n= 117)	43.5%	14.2%	7.1%	6.2%	5.3%	5.3%	4.4%	-

Comprehensive Registry of Esophageal Cancer in Japan, 2006

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Preface

We deeply appreciate the great contributions of many physicians in the registry of esophageal cancer cases. The Comprehensive Registry of Esophageal Cancer in Japan, 2006, was published here, despite some delay. The registry complies with the Act for the Protection of Personal Information. The encryption with a HASH function is used for “anonymity in an unlinkable fashion”.

These data were first made available on July 1, 2013, as the Comprehensive Registry of Esophageal Cancer in Japan, 2006. Not all the pages are reprinted here; however, the original table and figure numbers have been maintained.

The authors were members of the Registration Committee for Esophageal Cancer, the Japan Esophageal Society, and made great contributions to the preparation of this material.

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We briefly summarized the Comprehensive Registry of Esophageal Cancer in Japan, 2006. Japanese Classification of Esophageal Cancer 9th and UICC TNM Classification 6th were used for cancer staging according to the subjected year. A total of 4994 cases were registered from 239 institutions in Japan. Tumor locations were cervical: 4.2 %, upper thoracic: 13.4 %, middle thoracic: 48.7 %, lower thoracic: 26.0 % and EG junction: 6.7 %. Superficial carcinomas (Tis, T1a, T1b) were 35.9 %. As for the histologic type of biopsy specimens, squamous cell carcinoma and adenocarcinoma accounted for 90.8 and 3.9 %, respectively. Regarding clinical results, the 5-year survival rates of patients treated using endoscopic mucosal resection, concurrent chemoradiotherapy, radiotherapy alone, chemotherapy alone, or esophagectomy were 84.5, 25.8, 22.0, 3.0, and 48.0 %, respectively. Esophagectomy was performed in 2545 cases. Concerning the approach used for esophagectomy, 15.4 % of the cases were treated

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thoroscopically. The operative mortality (within 30 days after surgery) was 1.0 % and the hospital mortality was 2.1 %.

We hope that this Comprehensive Registry of Esophageal Cancer in Japan for 2006 will help to improve all aspects of the diagnosis and treatment of esophageal cancer in Japan.

Contents

I. Clinical factors of esophageal cancer patients treated in 2006

1. Institution-registered cases in 2006
2. Patient background

Table 1 Age and gender

Table 11 Types of primary treatment

Table 12 Tumor location

Table 15 Histologic types of biopsy specimens

Table 16 Depth of tumor invasion, cT (UICC TNM 6th)

Table 17 Lymph node metastasis, cN (UICC TNM 6th)

Table 18 Distant metastasis, cM (UICC TNM 6th)

Table 20 Clinical stage (UICC TNM 6th)

II. Clinical results of patients treated with endoscopy in 2006

Table 22 Treatment details in patients receiving endoscopy

Table 26 Complications of EMR/ESD

Table 30 Depth of tumor invasion of EMR/ESD specimens

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

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

III. Clinical results in patients treated with chemotherapy and/or radiotherapy in 2006

Table 33 Dose of irradiation (non-surgically treated cases)

Table 34 Dose of irradiation (surgically treated cases)

Figure 5 Survival of patients treated by chemotherapy and/or radiotherapy

Figure 6 Survival of patients treated by chemotherapy and/or radiotherapy (cStage I–IIA)

Figure 7 Survival of patients treated by chemotherapy and/or radiotherapy (cStage IIB–IVB)

IV. Clinical results in patients treated with esophagectomy in 2006

Table 42 Tumor location

Table 43 Approaches to tumor resection

Table 44 Endoscopic surgery

Table 45 Fields of lymph node dissection according to the location of the tumor

Table 47 Reconstruction route

Table 48 Organs used for reconstruction

Table 55 Histological classification

Table 56 Depth of tumor invasion

Table 58 Pathological grading of lymph node metastasis

Table 59 Numbers of the metastatic nodes

Table 60 Pathological findings of distant organ metastasis

Table 61 Residual tumor

Table 72 Causes of death

Figure 8 Survival of patients treated by esophagectomy

Figure 9 Survival of patients treated by esophagectomy in relation to clinical stage (JSED TNM 9th)

Figure 10 Survival of patients treated by esophagectomy in relation to clinical stage (UICC TNM 6th)

Figure 11 Survival of patients treated by esophagectomy in relation to the depth of tumor invasion: pT (JSED TNM 9th)

Figure 12 Survival of patients treated by esophagectomy in relation to the depth of tumor invasion: pT (UICC TNM 6th)

Figure 13 Survival of patients treated by esophagectomy in relation to lymph node metastasis: pN (JSED TNM 9th)

Figure 14 Survival of patients treated by esophagectomy in relation to lymph node metastasis: pN (UICC TNM 6th)

Figure 15 Survival of patients treated by esophagectomy in relation to pathological stage (JSED TNM 9th)

Figure 16 Survival of patients treated by esophagectomy in relation to pathological stage (UICC TNM 6th)

Figure 17 Survival of patients treated by esophagectomy in relation to number of metastatic node

Figure 18 Survival of patients treated by esophagectomy in relation to residual tumor: R

I. Clinical factors of esophageal cancer patients treated in 2006

Institution-registered cases in 2006

Institution
Aichi Cancer Center
Aizawa Hospital
Akita University Hospital
Arao Municipal Hospital
Asahikawa Medical College Hospital
Chiba Cancer Center
Chiba Medical Center
Chiba Prefecture Sawara Hospital
Chiba University Hospital
Chibaken Saiseikai Narashino Hospital
Dokkyo Medical University Hospital
Foundation for Detection of Early Gastric Carcinoma
Fuchu Hospital
Fujioka General Hospital
Fujisawa Shounandai Hospital
Fujita Health University
Fukui Red Cross Hospital
Fukui University Hospital
Fukuoka Saiseikai General Hospital
Fukuoka University Hospital
Gifu Prefectural General Medical Center
Gifu University Hospital
Gunma Central General Hospital
Gunma Prefectural Cancer Center
Gunma University Hospital
Hakodate Goryokaku Hospital
Hakodate National Hospital
Hamamatsu University School of Medicine, University Hospital
Hannan Chuo Hospital
Health Insurance Naruto Hospital
Hiratsuka City Hospital
Hiratsuka Kyosai Hospital
Hiroshima City Asa Hospital
Hiroshima University Research Institute for Radiation Biology Medicine
Hitachi General Hospital
Hokkaido Kin-Ikyo Chuo Hospital
Hokkaido P.W.F.A.C Obihiro-Kosei General Hospital
Hokkaido University Hospital
Hyogo College of Medicine
Ibaraki Prefectural Central Hospital
Imazu Surgical Clinic
Inazawa City Hospital
International University of Health and Welfare Mita Hospital
Ishikawa Prefectural Central Hospital

continued

Institution
Ishinomaki Red Cross Hospital
Iwakuni Medical Center
Iwate Medical University Hospital
Iwate Prefectural Chubu Hospital
Japanese Red Cross Shizuoka Hospital
Juntendo University Hospital
Juntendo University Shizuoka Hospital
Junwakai Memorial Hospital
Kagawa Prefectural Central Hospital
Kagawa Rosai Hospital
Kagawa University Hospital
Kagoshima Kenritsu Satsunan Hospital
Kagoshima University Hospital
Kanazawa Medical University Hospital
Kanazawa University Hospital
Kansai Medical University Hirakata Hospital
Kansai Rosai Hospital
Kasamatsu Hospital
Kashiwa Kousei General Hospital
Kawakita General Hospital
Kawasaki Medical School Hospital
Kawasaki Municipal Hospital
Kawasaki Municipal Ida Hospital
Keio University Hospital
Keiyukai Sapporo Hospital
Kikuna Memorial Hospital
Kinki Central Hospital
Kinki University Hospital
Kinki University Sakai Hospital
Kiryu Kosei General Hospital
Kishiwada City Hospital
Kitakyushu Municipal Medical Center
Kitasato University Hospital
Kitasato University Kitasato Institute Medical Center Hospital
Kobe City Medical Center General Hospital
Kochi University Hospital
Kumamoto University Hospital
Kurashiki Central Hospital
Kurume Daiichi Social Insurance Hospital
Kurume University Hospital
Kuwana West Medical Center
Kyorin University Hospital
Kyoto University Hospital
Kyushu Central Hospital of the Mutual Aid Association of Public School Teachers
Kyushu University Beppu Hospital
Kyushu University Hospital
Matsuda Hospital
Matsushita Memorial Hospital