

胃がん学会全国登録解析結果報告 —2007 年 EMR/ESD 症例—

1. 登録施設 計 122 施設

北海道・東北

独立行政法人国立病院機構・北海道がんセンター 市立函館病院 日鋼記念病院 市立室蘭総合病院 K K R 札幌医療センター斗南病院 北海道大学病院
恵佑会札幌病院 釧路労災病院 青森県立中央病院 弘前大学大学院医学研究科 岩手県立中央病院 宮城県立がんセンター 東北労災病院
独立行政法人国立病院機構・仙台医療センター 仙台厚生病院 福島県立医科大学 寿泉堂総合病院

北陸・関東・甲信越

済生会新潟第二病院 新潟大学医歯学総合病院 新潟県立がんセンター新潟病院 市立砺波総合病院 石川県立中央病院 金沢大学附属病院
福井県立病院 福井赤十字病院 福井県済生会病院 前橋赤十字病院 群馬県済生会前橋病院 群馬大学大学院
しらかわ診療所・群馬消化器内視鏡医療センター 上尾中央総合病院 埼玉医科大学国際医療センター 栃木県立がんセンター 獨協医科大学病院
友愛記念病院 千葉大学医学部附属病院 東京歯科大学市川総合病院 国立がん研究センター東病院 柏厚生総合病院 川崎市立川崎病院
北里大学東病院 神奈川県厚生農業協同組合連合会相模原協同病院 横浜市立大学附属市民総合医療センター 横浜市立市民病院
社会医療法人ジャパンメディカルアライアンス海老名総合病院 国立がん研究センター中央病院 順天堂大学医学部附属順天堂医院 日本医科大学
東京大学医学部附属病院 東京女子医科大学東医療センター 東京都立墨東病院 がん研有明病院 東京都立広尾病院 国立病院機構・東京医療センター
東京医科大学病院 国立国際医療研究センター 東京女子医科大学消化器病センター 杏林大学医学部附属病院 公立昭和病院
社会医療法人財団大和会東大和病院 社会医療法人財団慈泉会相澤病院 長野市民病院 J A 長野厚生連佐久総合病院・佐久医療センター
山梨大学医学部附属病院

東海・近畿

沼津市立病院 静岡県立静岡がんセンター 浜松医科大学 静岡県立総合病院 愛知県がんセンター中央病院 名古屋市立大学病院
三重大学医学部附属病院 滋賀医科大学 市立長浜病院 大阪府済生会中津病院 田附興風会医学研究所北野病院 大阪市立総合医療センター
大阪府済生会野江病院 大阪府立成人病センター 大阪赤十字病院 大阪府立急性期・総合医療センター 箕面市立病院 市立吹田市民病院 松下記念病院
京都府立医科大学附属病院 京都大学医学部附属病院 天理よろづ相談所病院 社会福祉法人恩賜財団済生会中和病院 和歌山県立医科大学
神戸百年記念病院 兵庫医科大学病院 医療法人公仁会姫路中央病院 兵庫県立がんセンター

中国・四国

島根県立中央病院 松江市立病院 岡山大学病院 水島協同病院 国立病院機構・福山医療センター 広島大学病院 広島市立安佐市民病院 広島記念病院
広島市立広島市民病院 呉医療センター・中国がんセンター J A厚生連広島総合病院 三豊総合病院 徳島県立中央病院 徳島赤十字病院
高知医療センター

九州・沖縄

国立病院機構九州がんセンター 福岡大学筑紫病院 長崎大学病院 熊本地域医療センター 熊本大学 J C H O人吉医療センター 大分医療センター
大分大学医学部 古賀総合病院 鹿児島共済会南風病院 琉球大学医学部附属病院 社会医療法人敬愛会中頭病院

2. 症例数 6,513 例(「内視鏡切除施行日」のデータに欠損のある1症例を除外)

3. 対象症例

登録対象は2007年1月から12月末までの胃がん EMR/ESD 症例

4. 解析方法

5 年生存率は、Kaplan-Meier 法により推定した。解析ソフトウェアは SPSS Ver. 20.0 を用いた。

5. 表中の略語の説明

direct death	: direct death within 30 postoperative days
primary disease	: cause of death primary disease
local rec.	: local recurrence
lymph node.	: lymph node recurrence
peritoneal	: peritoneal recurrence
liver rec.	: liver recurrence
R	: recurrence of unknown site
unknown	: cause of death unknown

All Patients			
Age	mean±SD	70.3 ±9.134	
	-39	13	(0.2%)
	40-59	838	(12.9%)
	60-79	4607	(70.7%)
	80-	1055	(16.2%)
Sex	Male	4889	(75.1%)
	Female	1624	(24.9%)
Prior endoscopic treatment	-	6322	(97.1%)
	+	174	(2.7%)
	Data unavailable	17	(0.3%)
Stomach condition	Normal stomach	6252	(96.0%)
	Remnant stomach	205	(3.1%)
	Gastric tube	39	(0.6%)
	Data unavailable	17	(0.3%)
Tumor location	U	1218	(18.7%)
	M	2457	(37.7%)
	L	2838	(43.6%)
Cross-sectional parts	Less	2710	(41.6%)
	Gre	1166	(17.9%)
	Ant	1139	(17.5%)
	Post	1495	(23.0%)
	Data unavailable	3	(0.0%)
Macroscopic type	Depressed type	3344	(51.3%)
	Elevated type	2500	(38.4%)
	Mixed type	623	(9.6%)
	Others	44	(0.7%)
	Data unavailable	2	(0.0%)
Method of endoscopic resection	ESD	5921	(90.9%)
	EMR	573	(8.8%)
	Others	2	(0.0%)
	Data unavailable	17	(0.3%)
En-bloc or piecemeal resection	En-bloc resection	6171	(94.7%)
	Piecemeal resection	325	(5.0%)
	Others	0	(0.0%)
	Data unavailable	17	(0.3%)
Bleeding requiring emergency surgery	Presence	29	(0.4%)
	Absence	6467	(99.3%)
	Data unavailable	17	(0.3%)
Perforation requiring emergency surgery	Presence	17	(0.3%)
	Absence	6479	(99.5%)
	Data unavailable	17	(0.3%)
Histological type	pap	159	(2.4%)
	tub1	5107	(78.4%)
	tub2	950	(14.6%)
	por	111	(1.7%)
	sig	107	(1.6%)
	muc	6	(0.1%)
	Others	67	(1.0%)
	Inconclusive	6	(0.1%)

Depth of tumor invasion	M	5439	(83.5%)
	SM1	493	(7.6%)
	SM2 or deeper than SM2	505	(7.8%)
	Others	53	(0.8%)
	Inconclusive	21	(0.3%)
	Data unavailable	2	(0.0%)
Lymphatic invasion(ly)	-	6144	(94.3%)
	+	318	(4.9%)
	Inconclusive	51	(0.8%)
Venous invasion(v)	-	6304	(96.8%)
	+	154	(2.4%)
	Inconclusive	55	(0.8%)
UL	-	5588	(85.8%)
	+	730	(11.2%)
	Inconclusive	178	(2.7%)
	Data unavailable	17	(0.3%)
Horizontal margin	HM0	5833	(89.6%)
	HM1	288	(4.4%)
	HMX	375	(5.8%)
	Data unavailable	17	(0.3%)
Vertical margin	VM0	6178	(94.9%)
	VM1	174	(2.7%)
	VMX	144	(2.2%)
	Data unavailable	17	(0.3%)
En-bloc resection with tumor-free margins	En-bloc resection with tumor-free margins	5656	(86.8%)
	Positive or inconclusive resected margins	857	(13.2%)
Curability	Curative resection	3093	(47.5%)
	Curative resection for expanded indication	1852	(28.4%)
	Non-curative resection	1568	(24.1%)
Subsequent treatment for non-curative resection	No additional treatment	1020	(65.1%)
	Surgery	420	(26.8%)
	Endoscopic resection	43	(2.7%)
	Endoscopic ablation	56	(3.6%)
	Others	6	(0.4%)
	Data unavailable	23	(1.5%)
Total		6,513	(100.0%)

Methods of endoscopic resection		ESD	EMR
Age	mean±SD	70.3 ±9.096	70.9 ±9.523
	-39	11 (0.2%)	2 (0.3%)
	40-59	763 (12.9%)	73 (12.7%)
	60-79	4198 (70.9%)	393 (68.6%)
	80-	949 (16.0%)	105 (18.3%)
Sex	Male	4467 (75.4%)	406 (70.9%)
	Female	1454 (24.6%)	167 (29.1%)
Prior endoscopic treatment	-	5783 (97.7%)	537 (93.7%)
	+	138 (2.3%)	36 (6.3%)
Stomach condition	Normal stomach	5710 (96.4%)	540 (94.2%)
	Remnant stomach	173 (2.9%)	32 (5.6%)
	Gastric tube	38 (0.6%)	1 (0.2%)
Tumor location	U	1118 (18.9%)	96 (16.8%)
	M	2249 (38.0%)	200 (34.9%)
	L	2554 (43.1%)	277 (48.3%)
Cross-sectional parts	Less	2483 (41.9%)	223 (38.9%)
	Gre	1036 (17.5%)	124 (21.6%)
	Ant	1036 (17.5%)	99 (17.3%)
	Post	1363 (23.0%)	127 (22.2%)
	Data unavailable	3 (0.1%)	0 (0.0%)
Macroscopic type	Depressed type	3124 (52.8%)	207 (36.1%)
	Elevated type	2178 (36.8%)	316 (55.1%)
	Mixed type	581 (9.8%)	42 (7.3%)
	Others	38 (0.6%)	6 (1.0%)
	Data unavailable	0 (0.0%)	2 (0.3%)
En-bloc or piecemeal resection	En-bloc resection	5741 (97.0%)	428 (74.7%)
	Piecemeal resection	180 (3.0%)	145 (25.3%)
Bleeding requiring emergency surgery	Presence	22 (0.4%)	7 (1.2%)
	Absence	5899 (99.6%)	566 (98.8%)
Perforation requiring emergency surgery	Presence	15 (0.3%)	2 (0.3%)
	Absence	5906 (99.7%)	571 (99.7%)
Histological type	pap	127 (2.1%)	29 (5.1%)
	tub1	4640 (78.4%)	461 (80.5%)
	tub2	882 (14.9%)	60 (10.5%)
	por	108 (1.8%)	3 (0.5%)
	sig	102 (1.7%)	5 (0.9%)
	muc	5 (0.1%)	1 (0.2%)
	Others	54 (0.9%)	11 (1.9%)
	Inconclusive	3 (0.1%)	3 (0.5%)

		ESD	EMR
Depth of tumor invasion	M	4915 (83.0%)	512 (89.4%)
	SM1	470 (7.9%)	23 (4.0%)
	SM2 or deeper than SM2	482 (8.1%)	22 (3.8%)
	Others	42 (0.7%)	8 (1.4%)
	Inconclusive	12 (0.2%)	6 (1.0%)
	Data unavailable	0 (0.0%)	2 (0.3%)
Lymphatic invasion(ly)	-	5590 (94.4%)	542 (94.6%)
	+	296 (5.0%)	17 (3.0%)
	Inconclusive	35 (0.6%)	14 (2.4%)
Venous invasion(v)	-	5736 (96.9%)	553 (96.5%)
	+	146 (2.5%)	6 (1.0%)
	Inconclusive	39 (0.7%)	14 (2.4%)
UL	-	5100 (86.1%)	487 (85.0%)
	+	710 (12.0%)	20 (3.5%)
	Inconclusive	111 (1.9%)	66 (11.5%)
Horizontal margin	HM0	5502 (92.9%)	330 (57.6%)
	HM1	175 (3.0%)	113 (19.7%)
	HMX	244 (4.1%)	130 (22.7%)
Vertical margin	VM0	5665 (95.7%)	512 (89.4%)
	VM1	151 (2.6%)	23 (4.0%)
	VMX	105 (1.8%)	38 (6.6%)
En-bloc resection with tumor-free margins	En-bloc resection with tumor-free margins	5334 (90.1%)	321 (56.0%)
	Positive or inconclusive resected margins	587 (9.9%)	252 (44.0%)
Curability	Curative resection	2831 (47.8%)	261 (45.5%)
	Curative resection for expanded indication	1822 (30.8%)	30 (5.2%)
	Non-curative resection	1268 (21.4%)	282 (49.2%)
Subsequent treatment for non-curative resection	No additional treatment	797 (62.9%)	222 (78.7%)
	Surgery	397 (31.3%)	23 (8.2%)
	Endoscopic resection	35 (2.8%)	8 (2.8%)
	Endoscopic ablation	30 (2.4%)	26 (9.2%)
	Others	5 (0.4%)	1 (0.4%)
	Data unavailable	4 (0.3%)	2 (0.7%)
Total		5921 (100.0%)	573 (100.0%)

Survival curve of patients

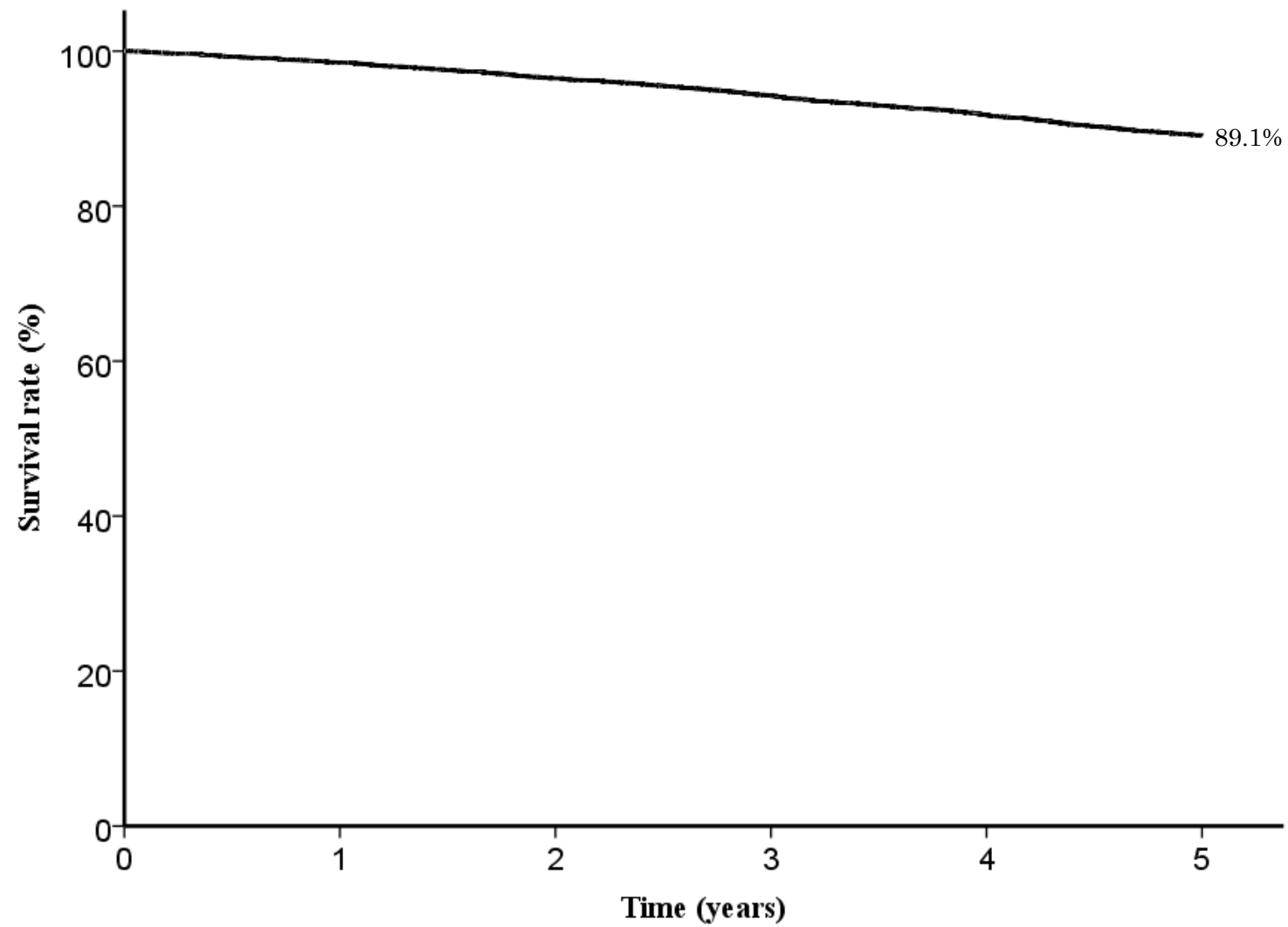


Fig. 1. Five year survival rates for all patients

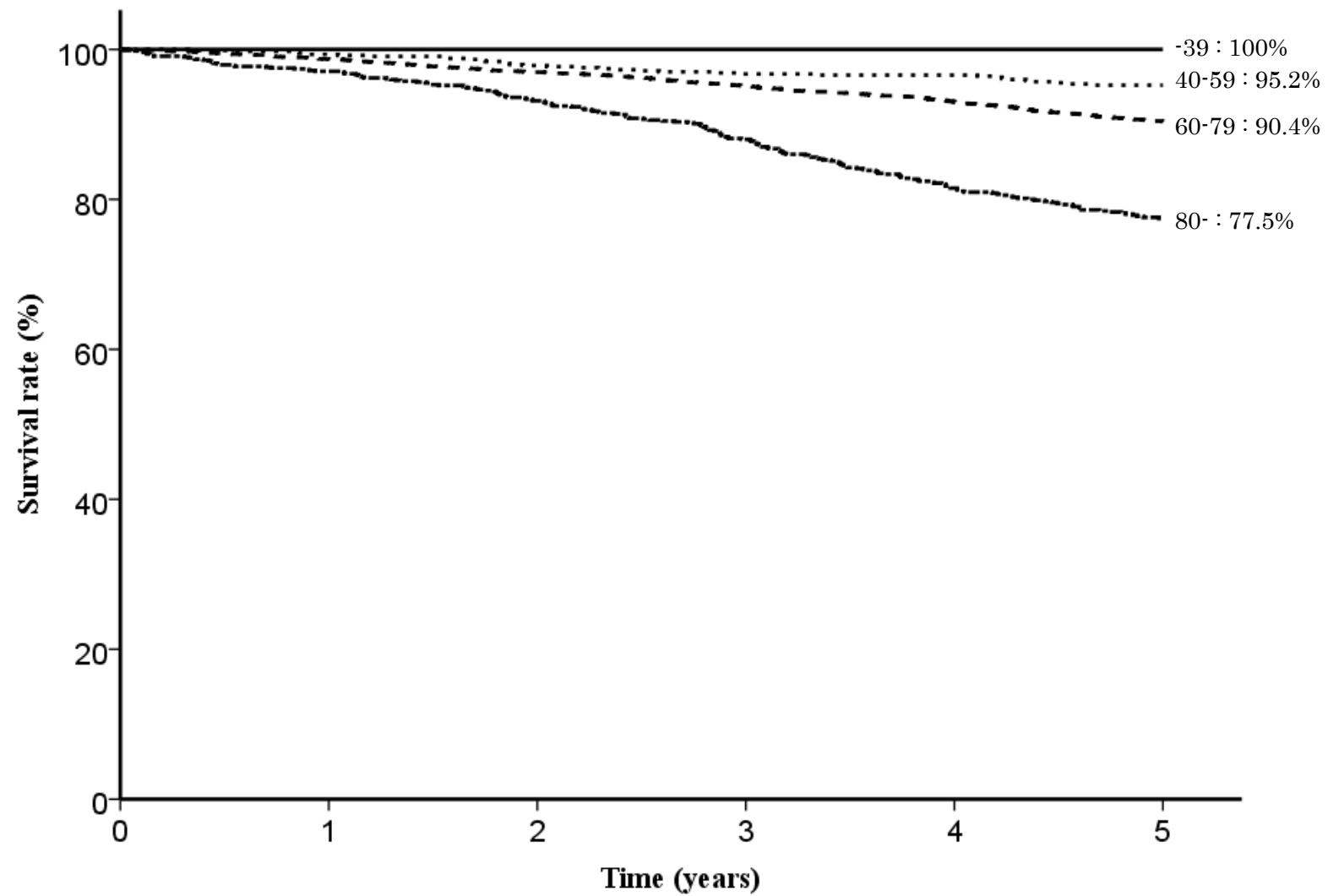


Fig. 2. Five year survival rates stratified by age

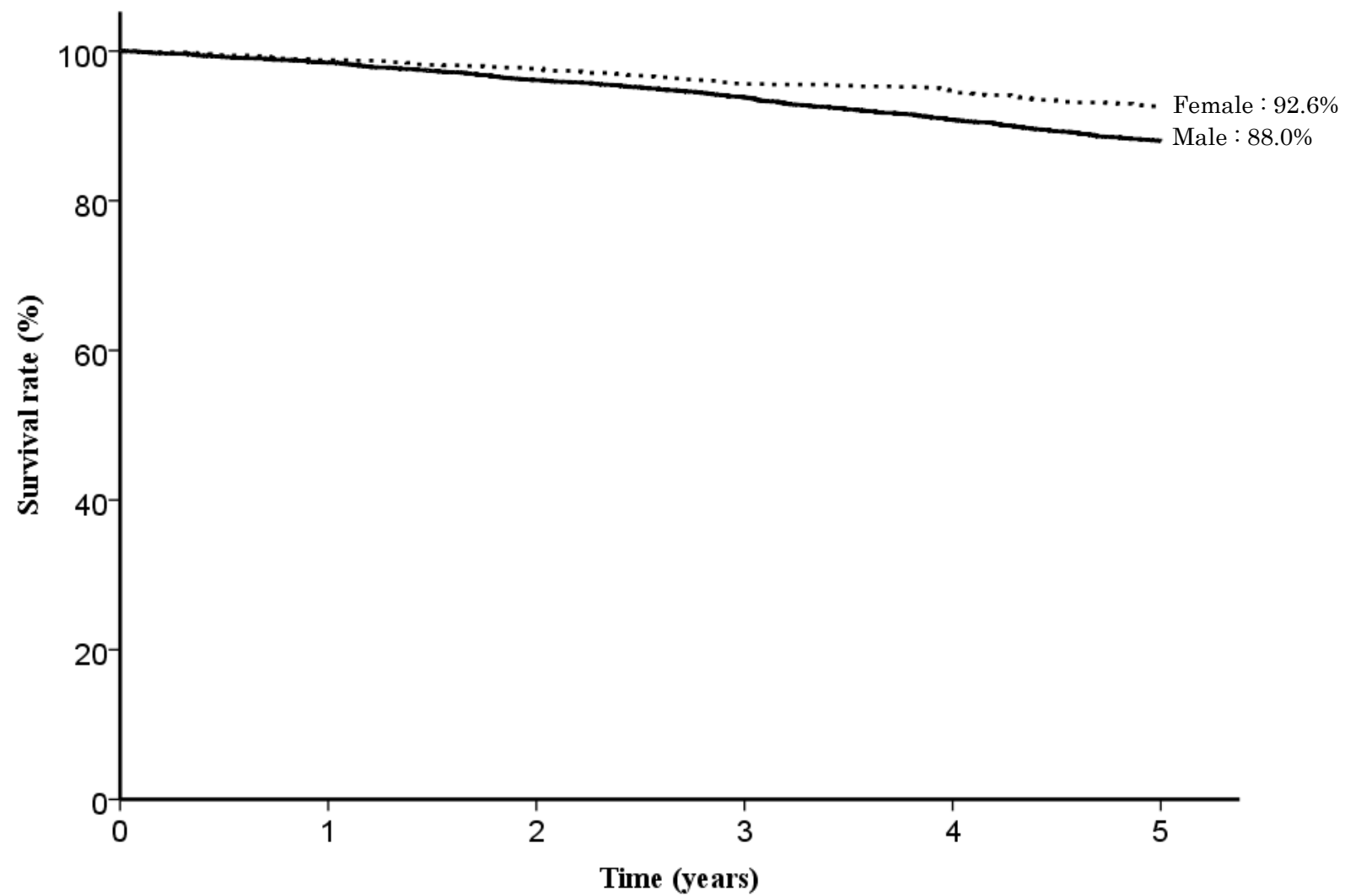


Fig. 3. Five year survival rates stratified by sex

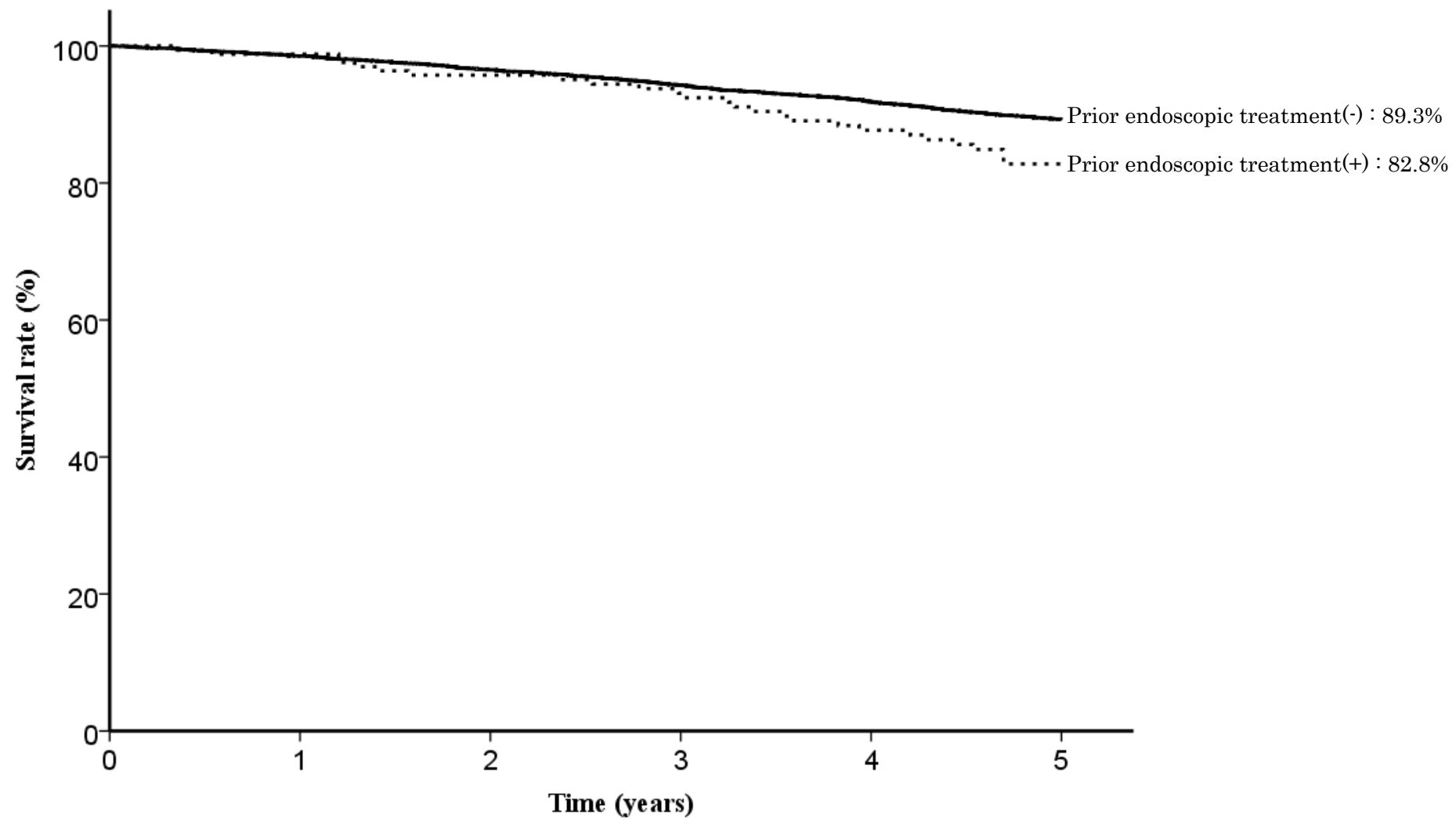


Fig. 4. Five year survival rates stratified by prior endoscopic treatment

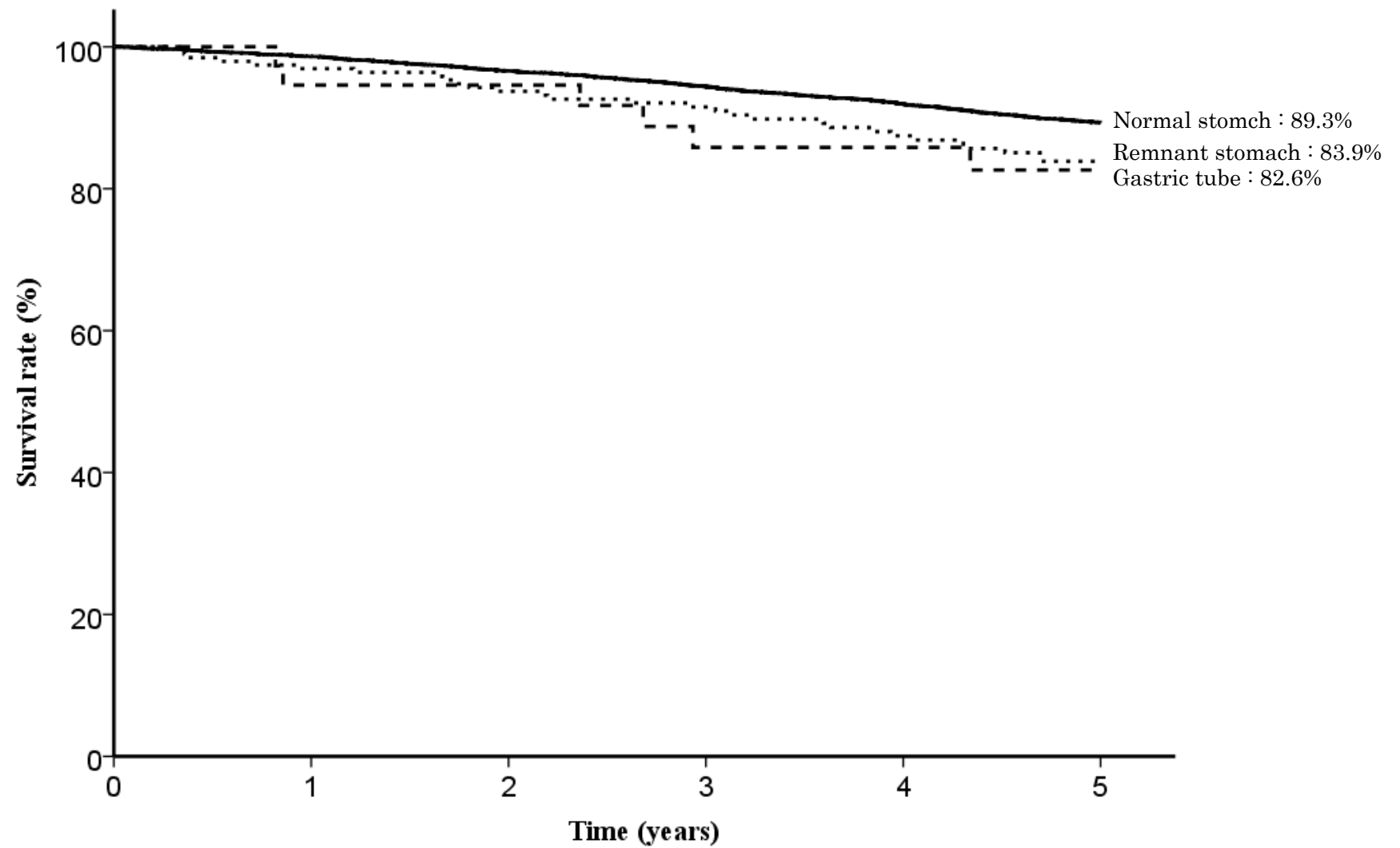


Fig. 5. Five year survival rates stratified by stomach condition

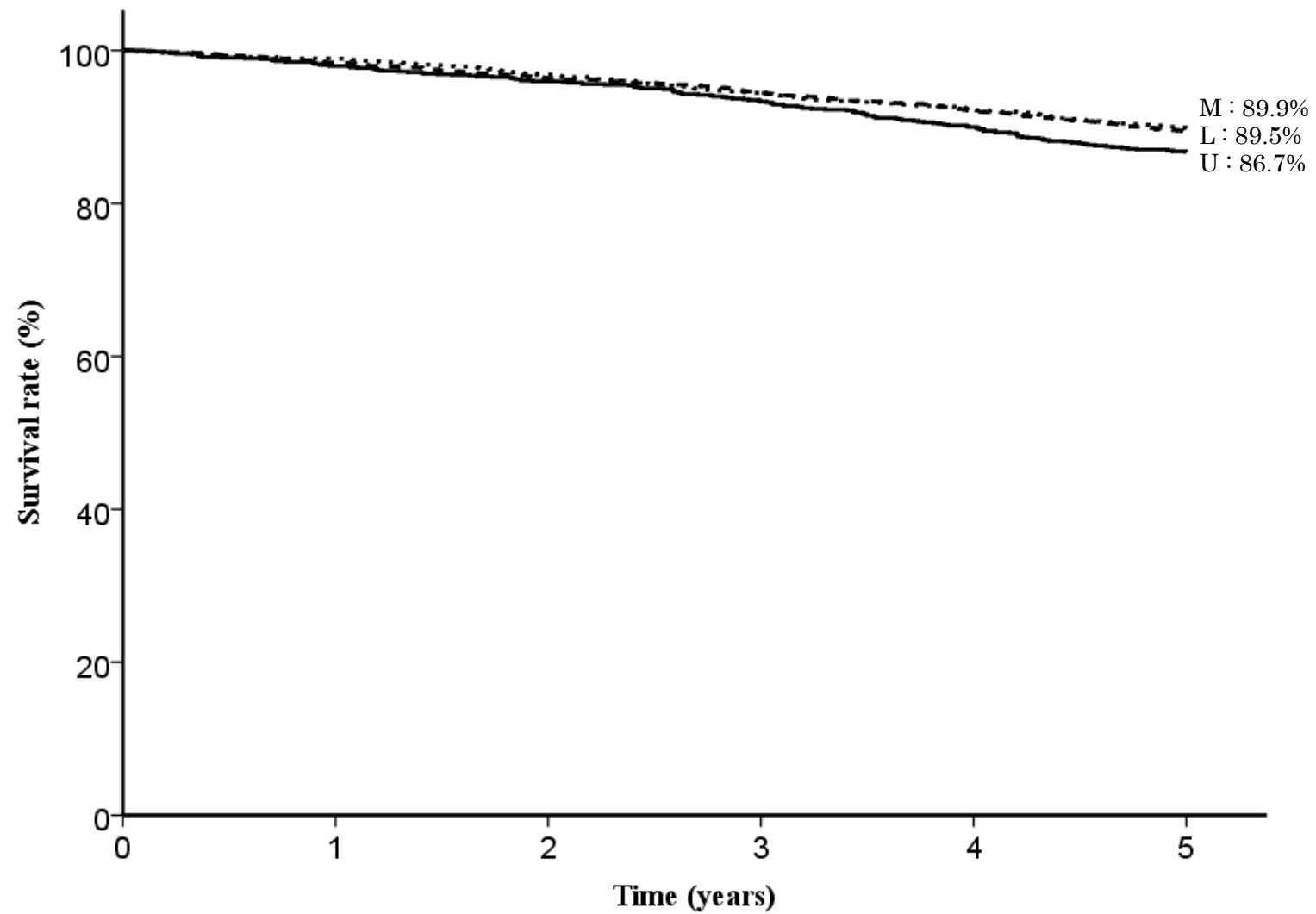


Fig. 6. Five year survival rates stratified by tumor location

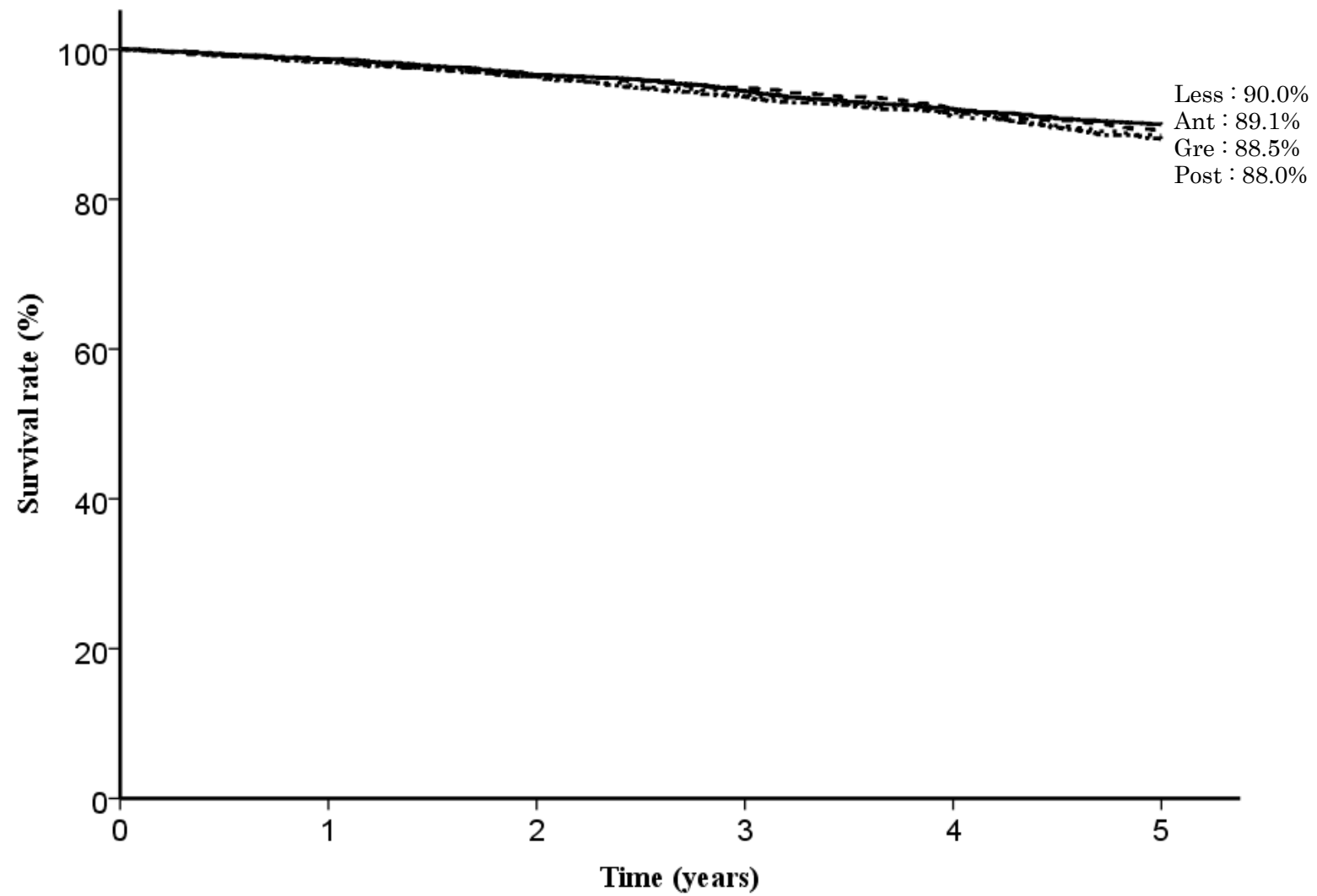


Fig. 7. Five year survival rates stratified by cross-sectional parts

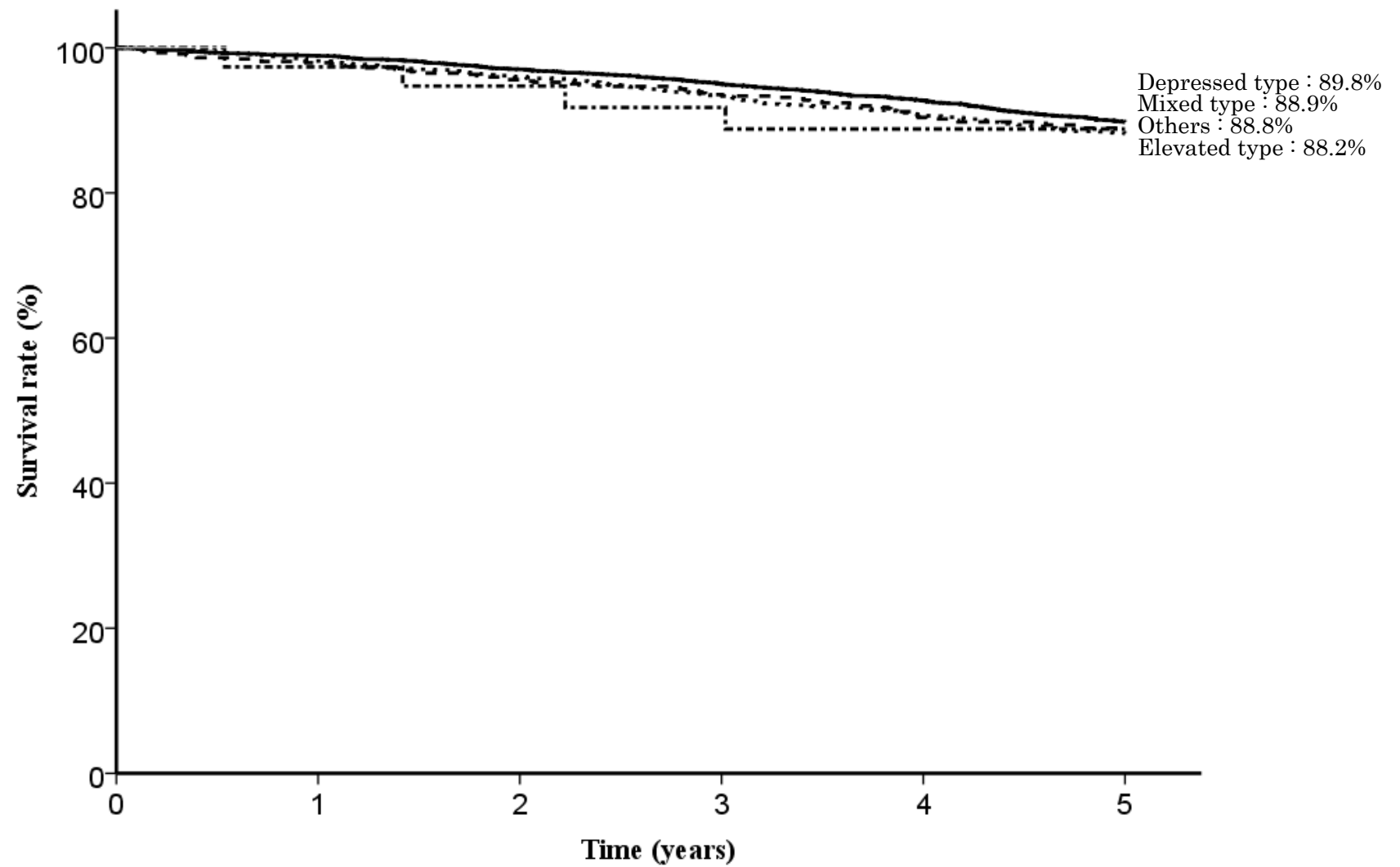


Fig. 8. Five year survival rates stratified by macroscopic type

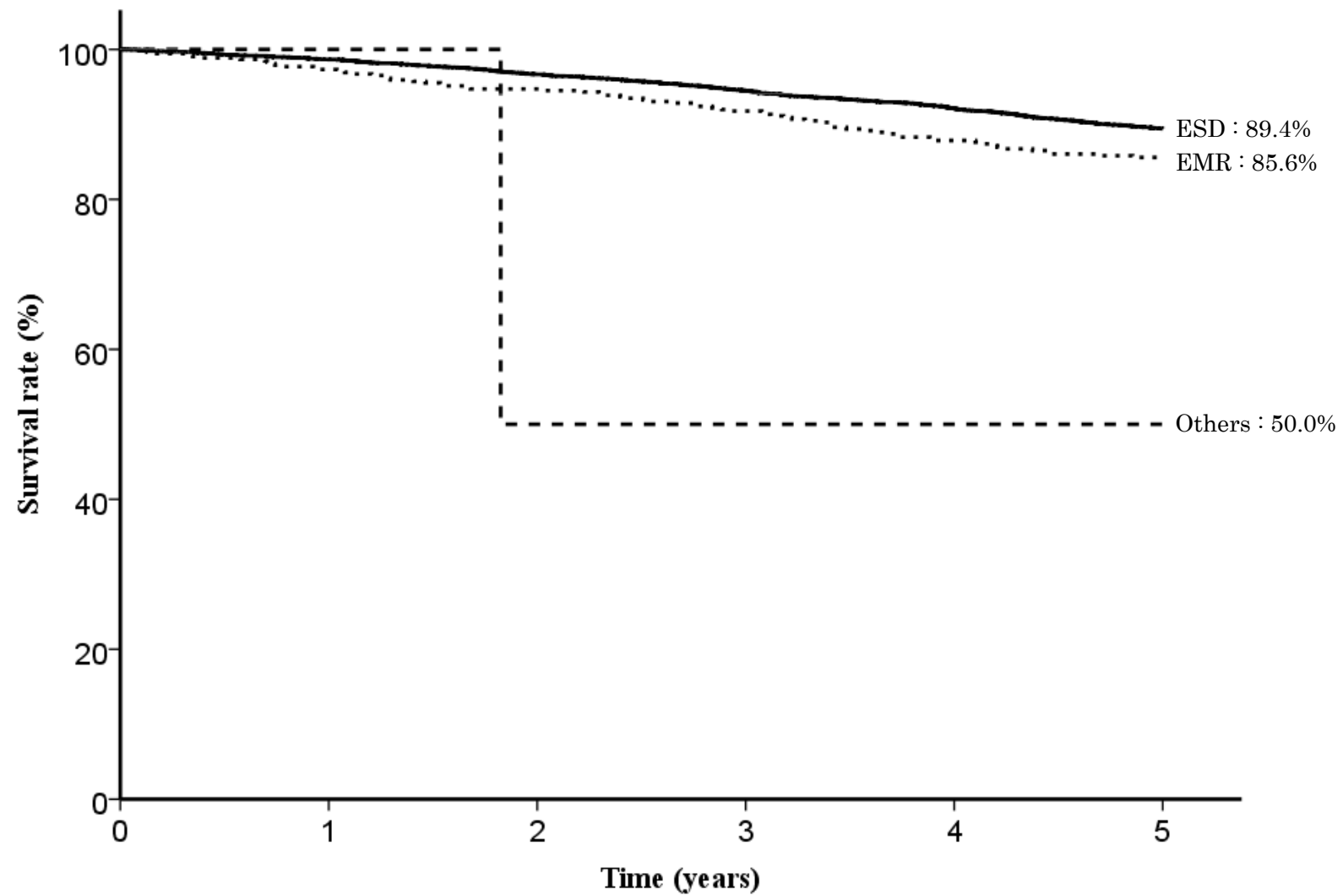


Fig. 9. Five year survival rates stratified by method of endoscopic resection

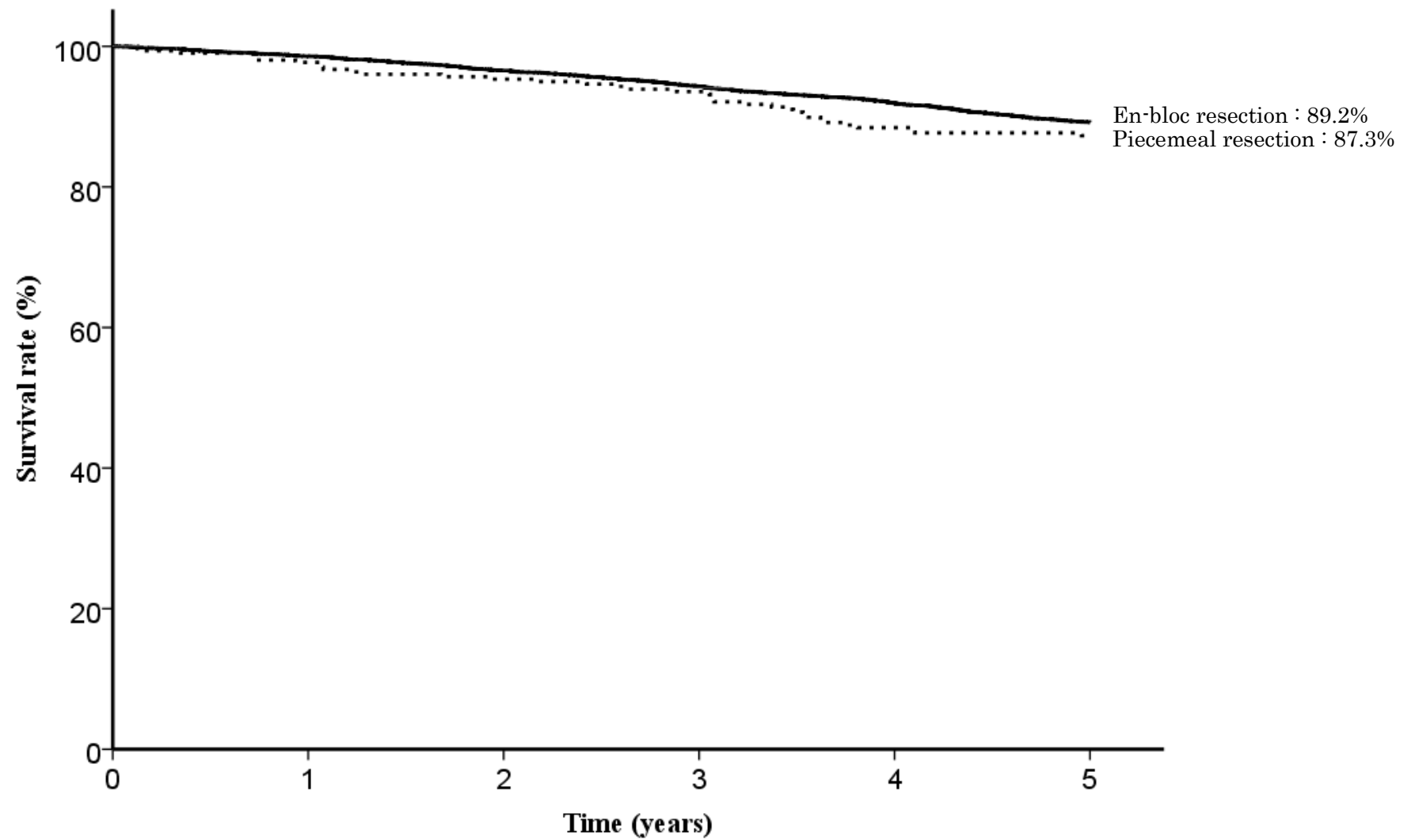


Fig. 10. Five year survival rates stratified by en-bloc or piecemeal resection

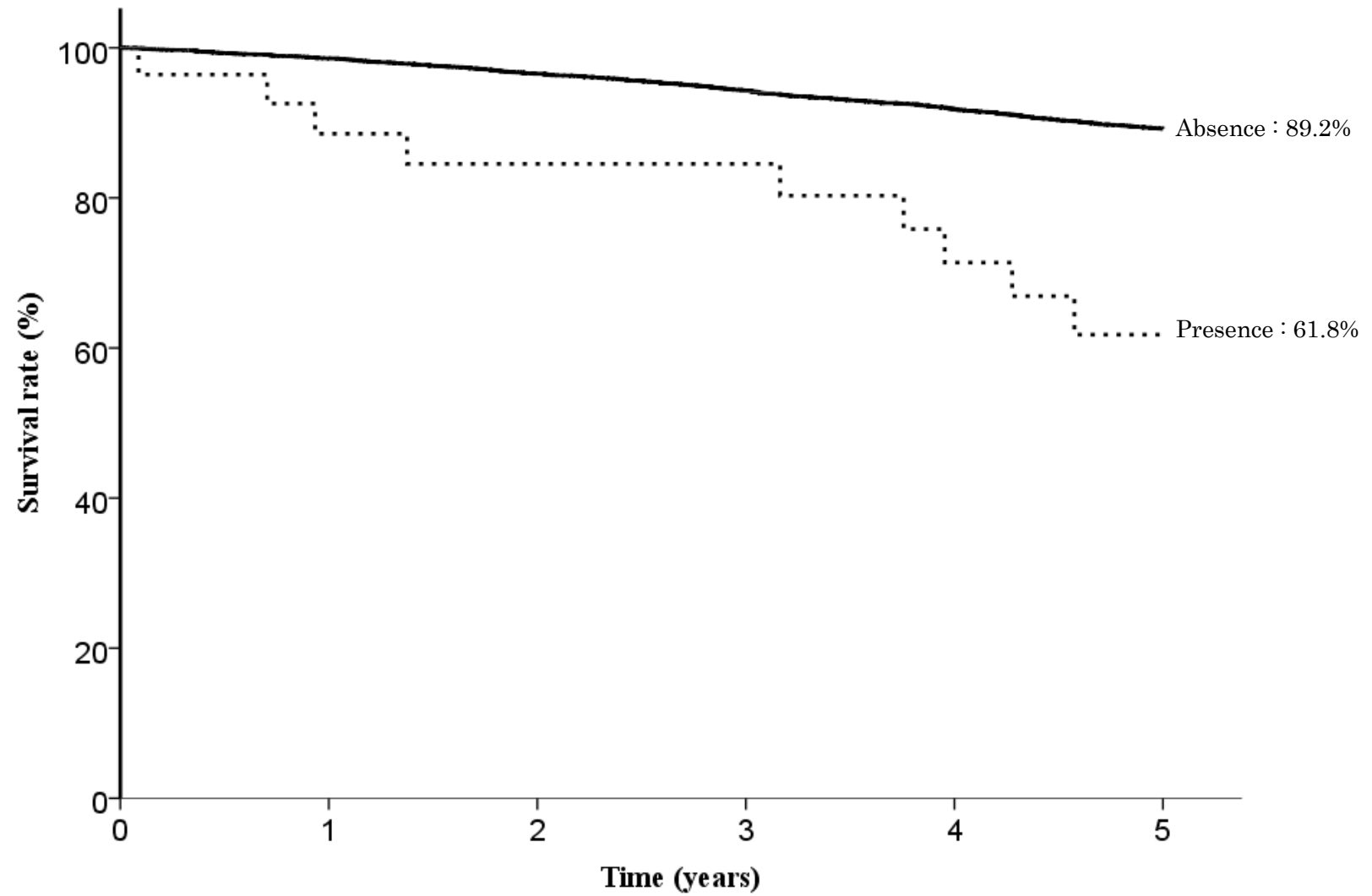


Fig. 11. Five year survival rates stratified by bleeding requiring emergency surgery

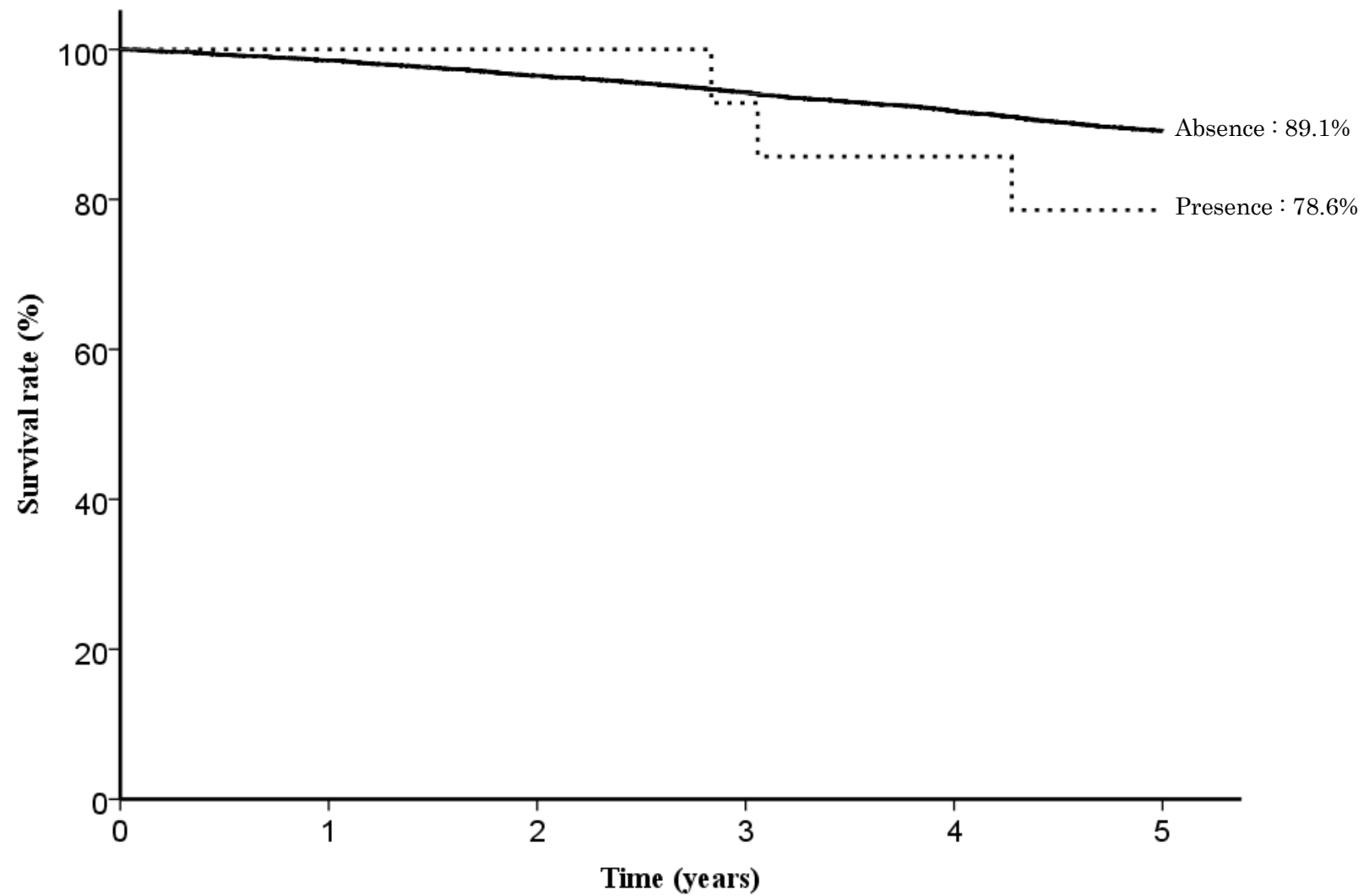


Fig. 12. Five year survival rates stratified by perforation requiring emergency surgery

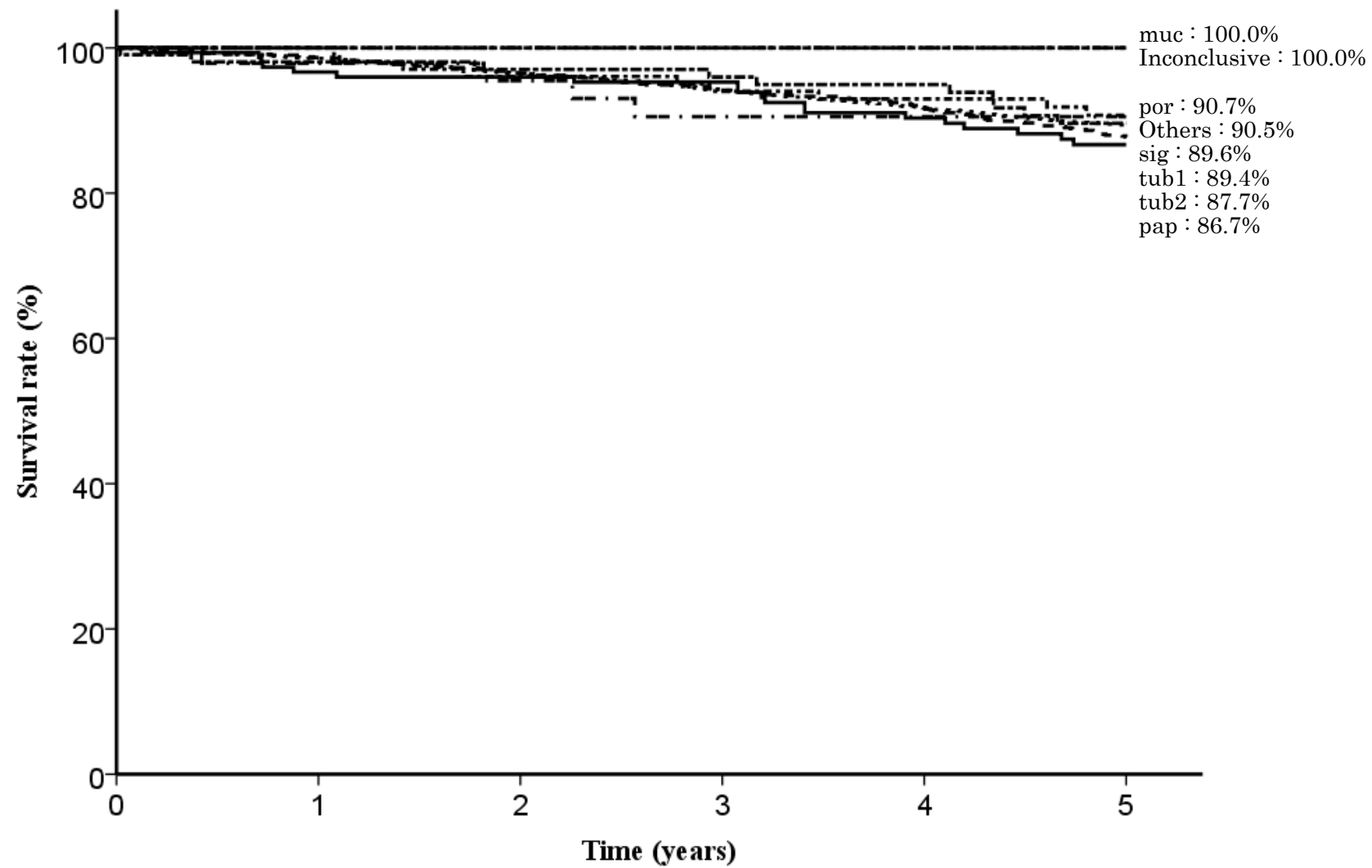


Fig. 13. Five year survival rates stratified by histological type

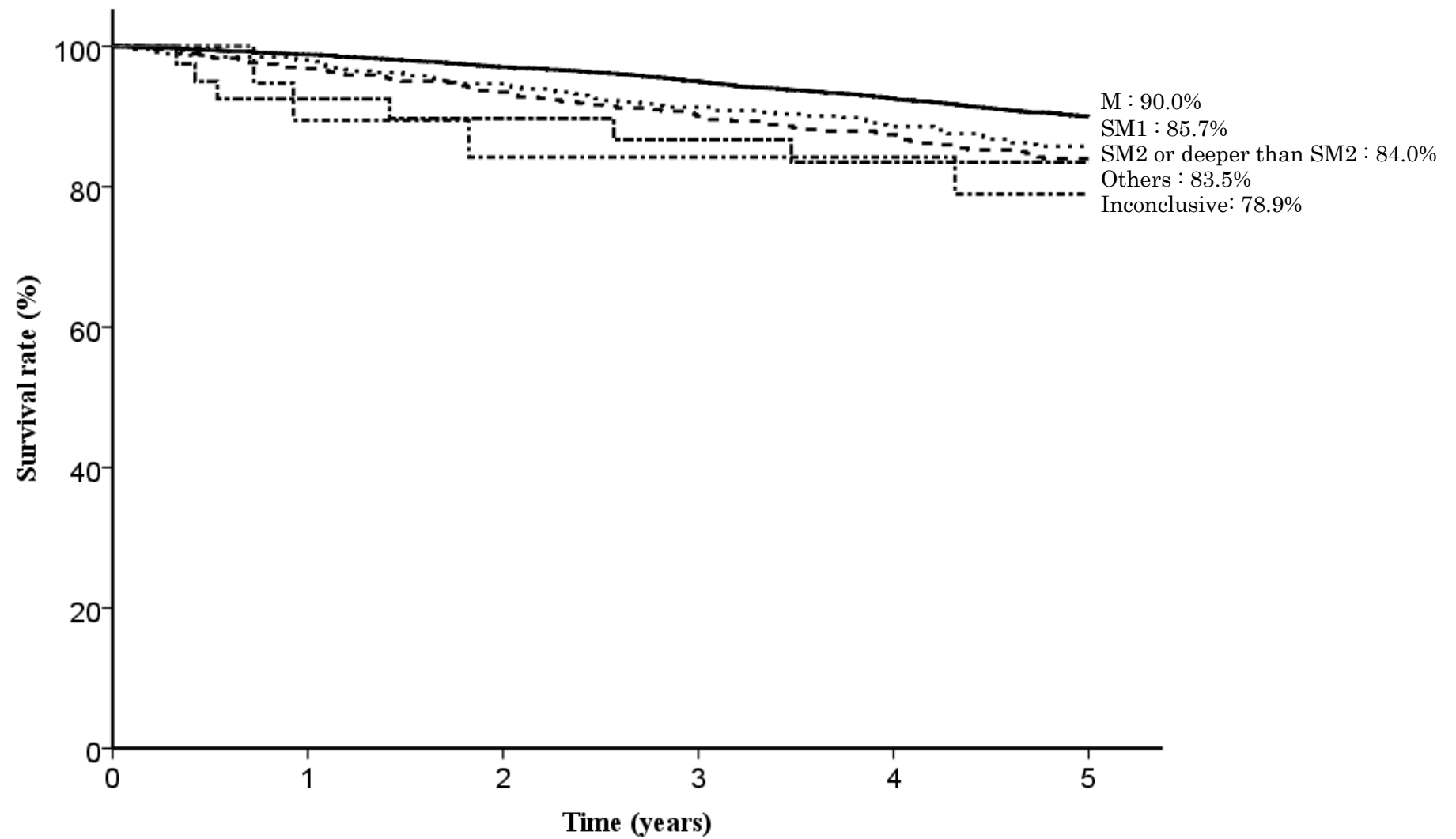


Fig. 14. Five year survival rates stratified by depth of tumor invasion

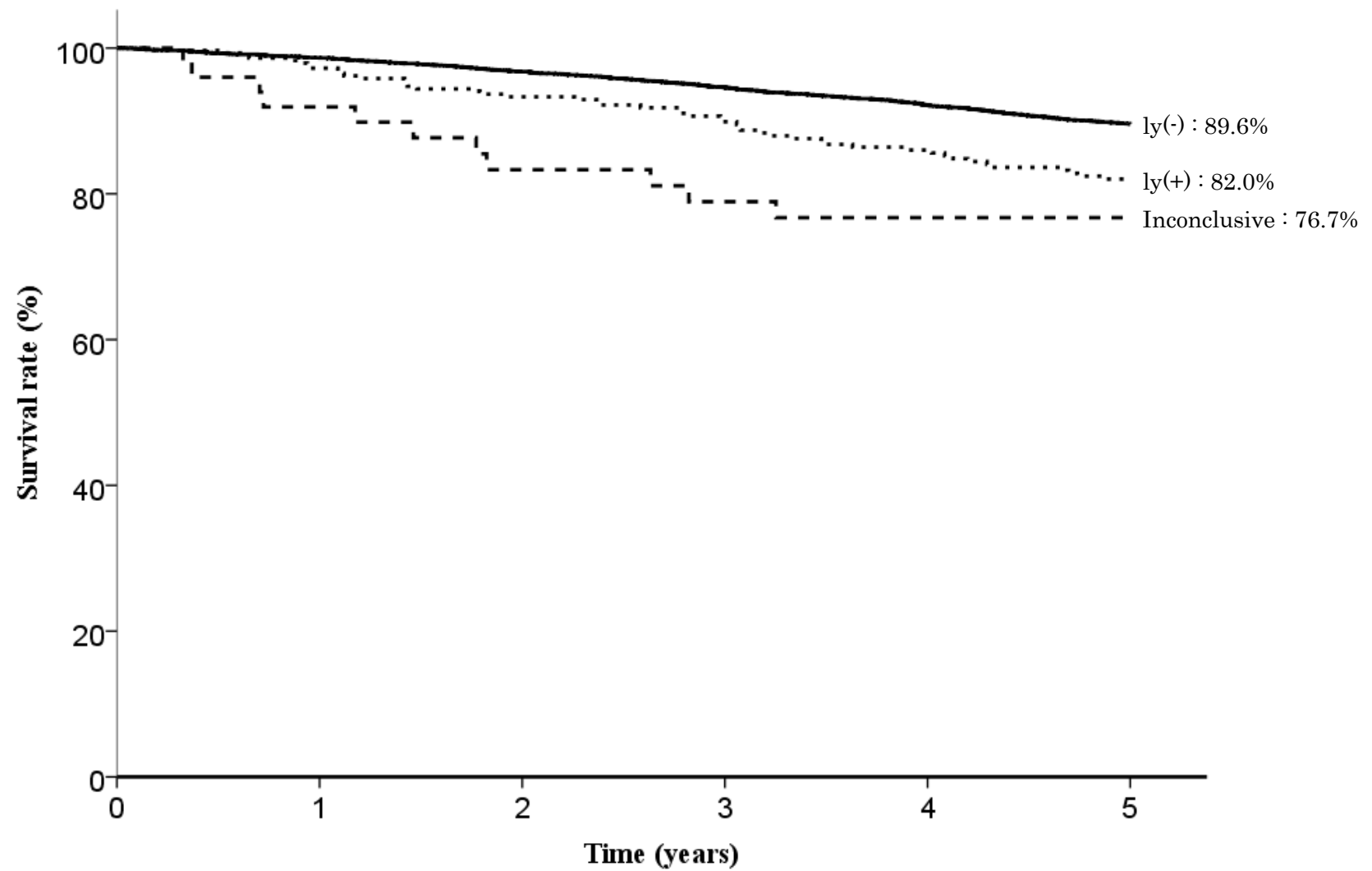


Fig. 15. Five year survival rates stratified by lymphatic invasion

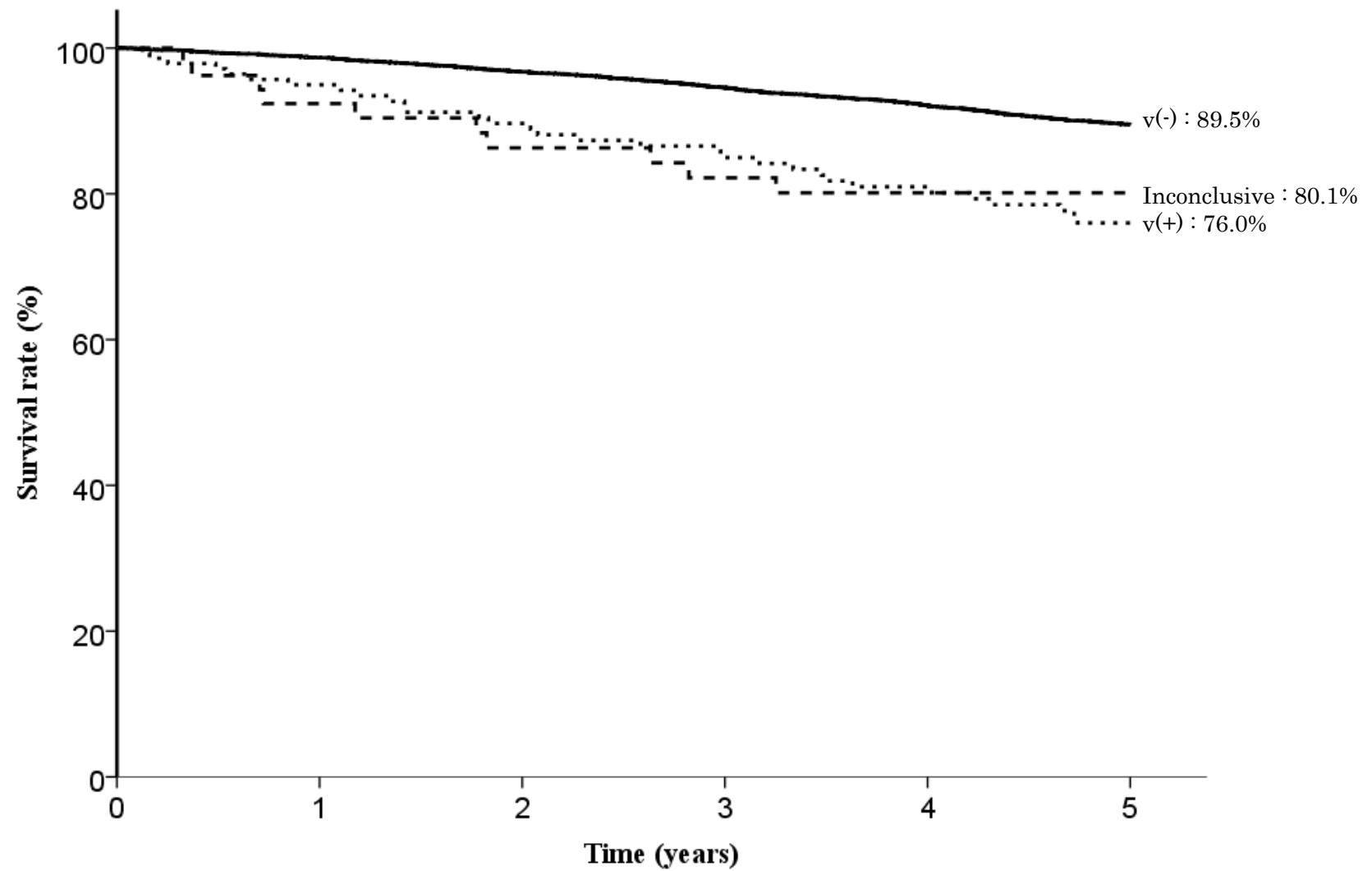


Fig. 16. Five year survival rates stratified by venous invasion

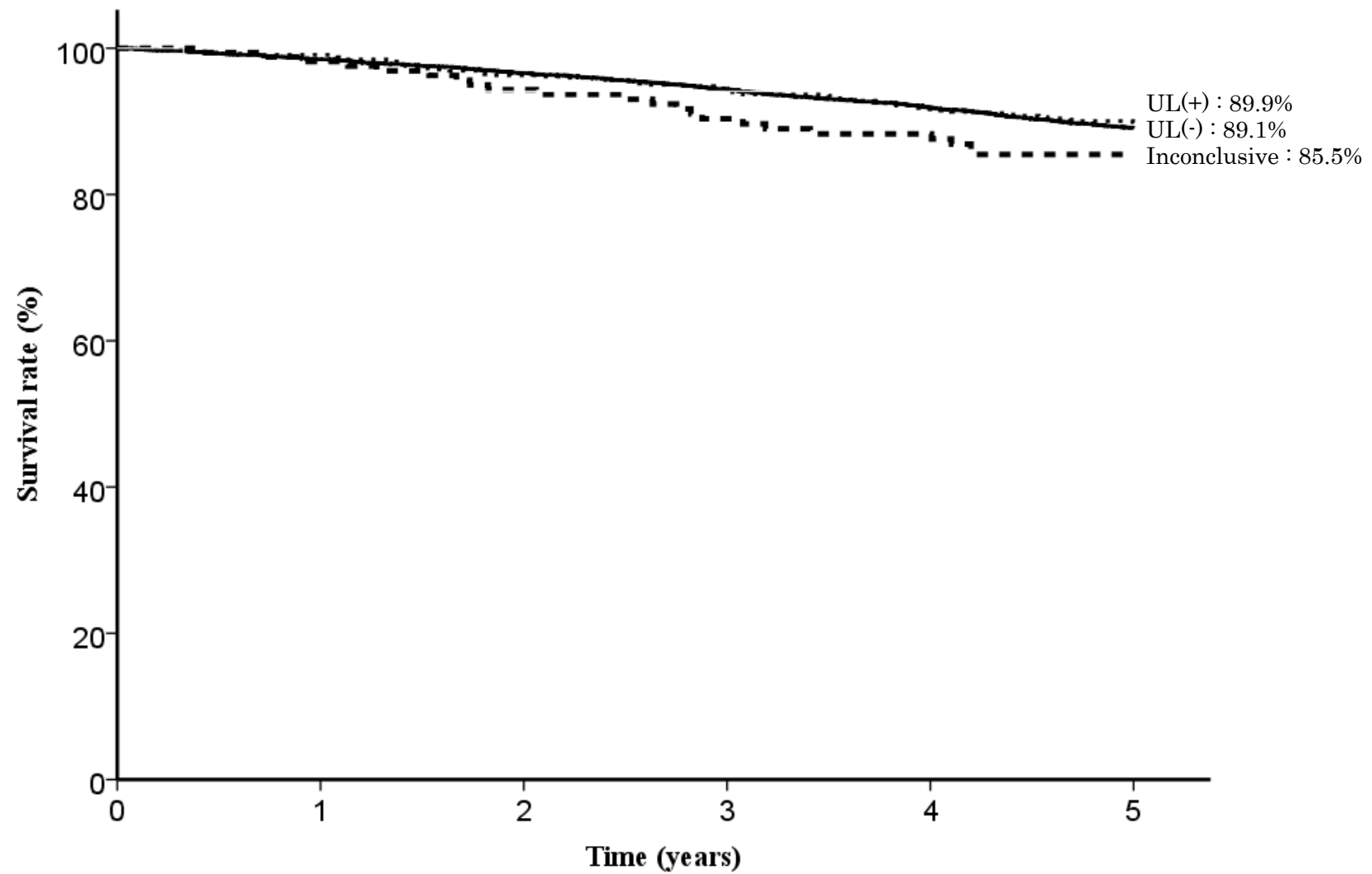


Fig. 17. Five year survival rates stratified by UL

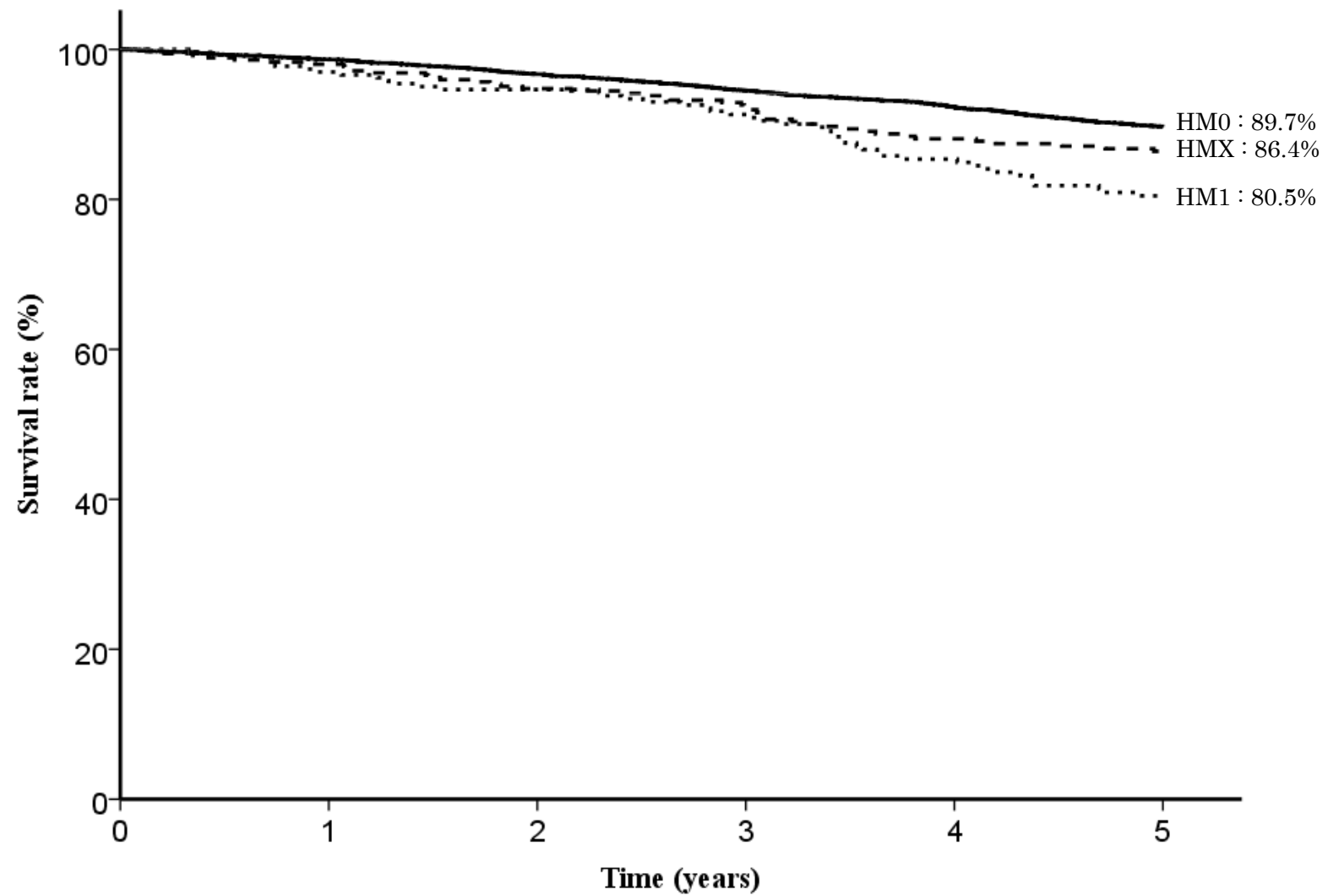


Fig. 18. Five year survival rates stratified by horizontal margin

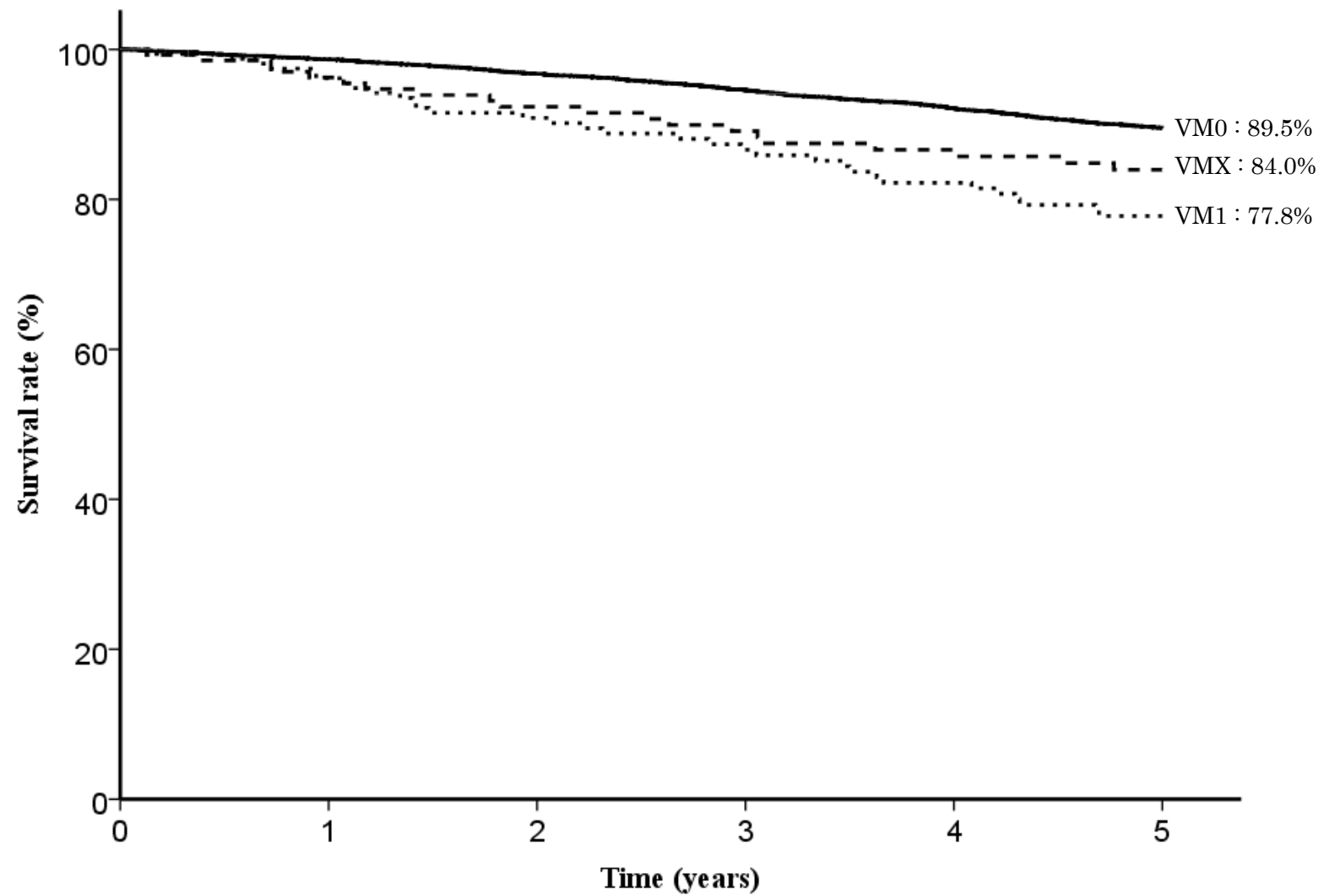


Fig. 19. Five year survival rates stratified by vertical margin

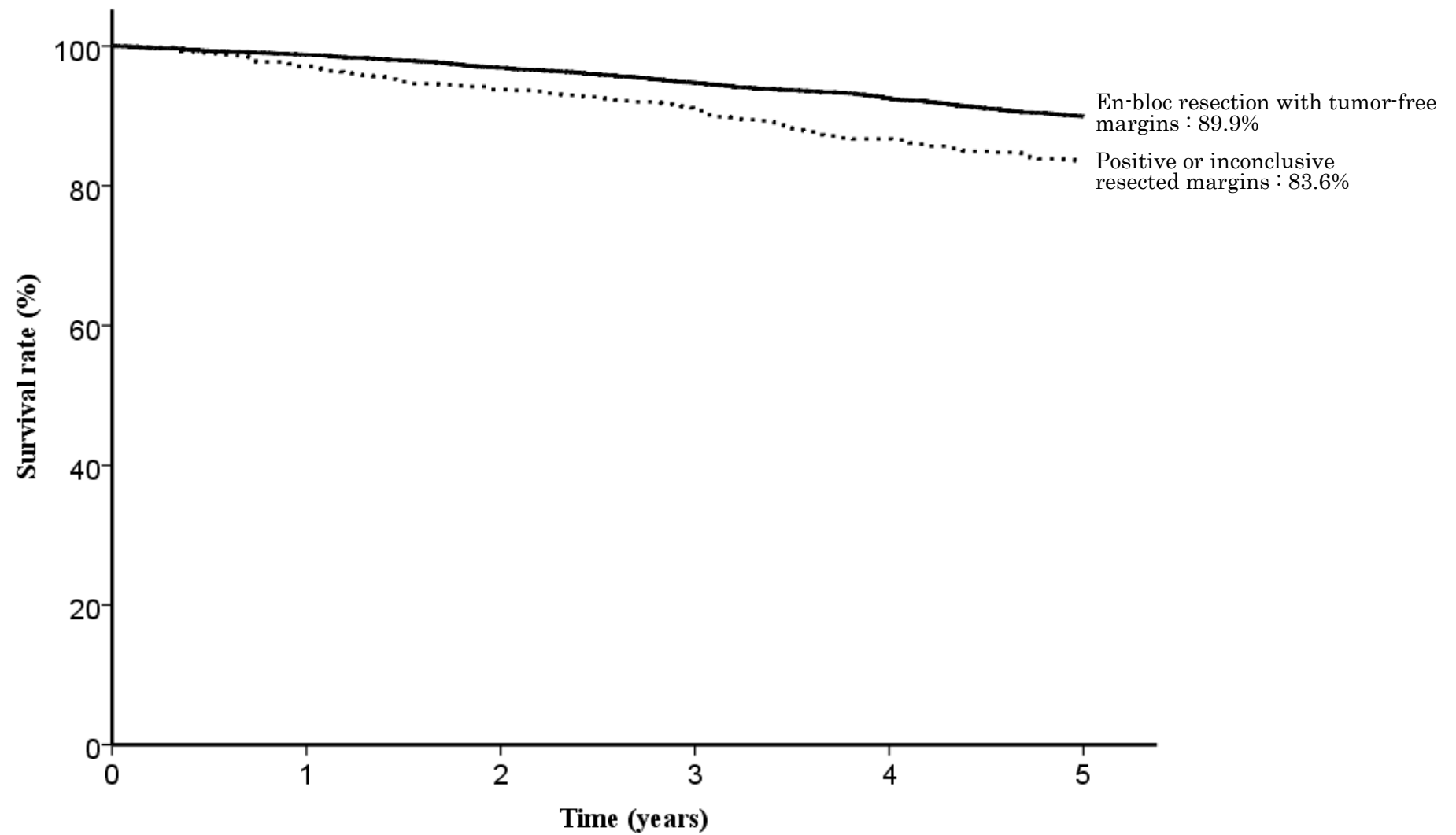


Fig. 20. Five year survival rates stratified by en-bloc resection with tumor-free margins

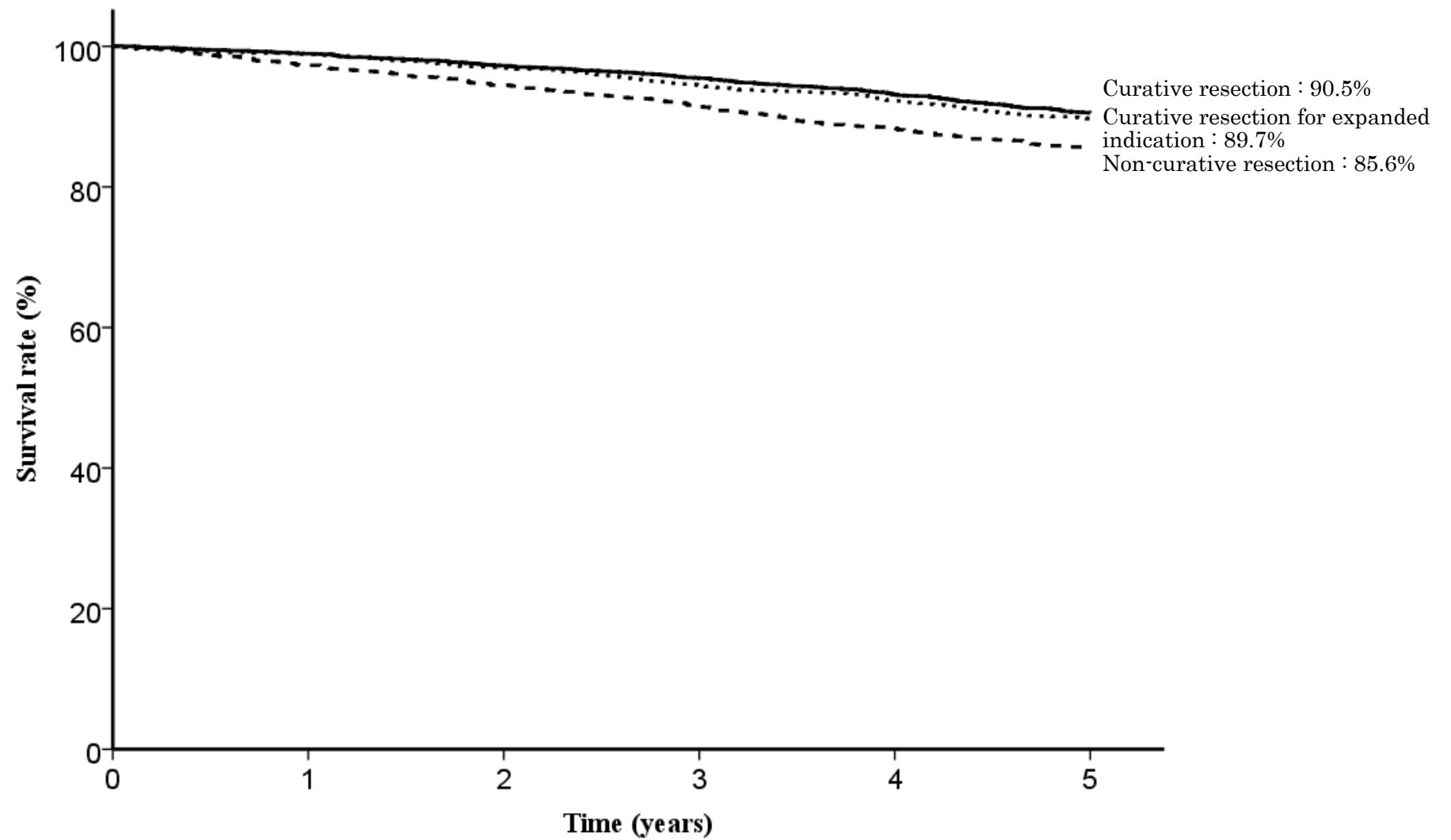


Fig. 21. Five year survival rates stratified by curability

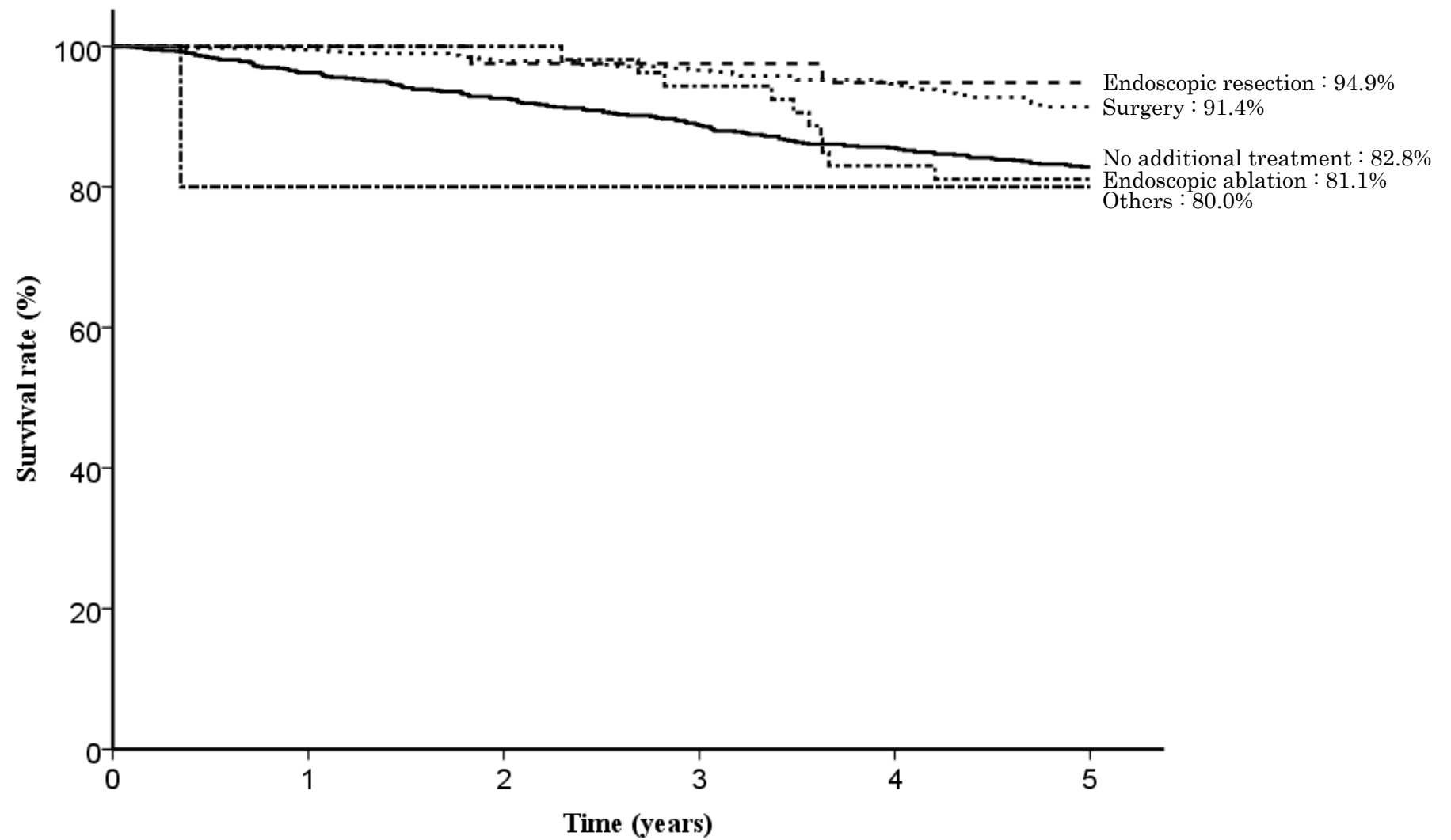


Fig. 22. Five year survival rates stratified by subsequent treatment for non-curative resection

Table1. EMR/ESD

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
EMR/ESD	6513	3	1492	98.5	96.5	94.2	91.8	89.1	0.4	4420	11	3	3	2	6	1	194	227	154

Table2. Age

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
-39	13	0	5	100.0	100.0	100.0	100.0	100.0		8	0	0	0	0	0	0	0	0	0
40-59	838	0	186	99.3	97.8	96.7	96.6	95.2	0.8	618	2	1	0	0	1	0	12	11	7
60-79	4607	1	961	98.7	97.0	95.1	93.0	90.4	0.5	3265	5	0	2	1	4	0	133	146	90
80-	1055	2	340	97.1	93.1	88.0	81.5	77.5	1.5	529	4	2	1	1	1	1	49	70	57

Table3. Sex

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
Male	4889	3	1062	98.4	96.1	93.8	90.8	88.0	0.5	3325	8	2	3	1	6	1	165	190	126
Female	1624	0	430	98.8	97.6	95.7	94.7	92.6	0.7	1095	3	1	0	1	0	0	29	37	28

Table4. Prior endoscopic treatment

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
Prior endoscopic treatment (-)	6322	3	1456	98.5	96.5	94.3	91.9	89.3	0.4	4292	8	3	2	1	6	1	188	219	146
Prior endoscopic treatment (+)	174	0	36	98.8	95.7	93.1	87.7	82.8	3.1	112	2	0	1	1	0	0	6	8	8

Table5. Stomach condition

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
Normal stomach	6252	3	1445	98.6	96.6	94.4	91.9	89.3	0.4	4242	8	3	3	1	6	1	178	217	148
Remnant stomach	205	0	38	96.9	93.7	91.5	87.5	83.9	2.8	138	2	0	0	1	0	0	12	8	6
Gastric tube	39	0	9	94.6	94.6	85.8	85.8	82.6	6.5	24	0	0	0	0	0	0	4	2	0

Table6. Tumor location

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
Upper third	1218	0	257	98.0	96.0	93.3	90.0	86.7	1.1	822	2	1	2	1	3	0	47	46	37
Middle third	2457	3	524	98.9	96.9	94.5	92.3	89.9	0.7	1720	6	1	0	1	3	0	79	77	46
Lower third	2838	0	711	98.4	96.4	94.5	92.1	89.5	0.6	1878	3	1	1	0	0	1	68	104	71

Table7. Cross-sectional parts

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
Less	2710	0	616	98.7	96.6	94.4	92.0	90.0	0.6	1863	4	1	2	0	1	0	84	79	60
Gre	1166	1	284	98.4	96.4	94.0	91.0	88.5	1.0	770	0	1	0	1	0	1	31	54	24
Ant	1139	1	256	98.6	96.4	94.8	92.3	89.1	1.0	778	5	0	0	1	2	0	31	34	32
Post	1495	1	336	98.3	96.3	93.7	91.5	88.0	0.9	1007	2	1	1	0	3	0	48	60	37

Table8. Macroscopic type

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
Depressed type	3344	2	696	98.9	97.0	95.0	92.7	89.8	0.6	2354	6	1	1	1	3	0	106	98	78
Elevated type	2500	0	631	98.2	96.0	93.4	90.8	88.2	0.7	1625	4	2	0	1	2	1	73	100	61
Mixed type	623	1	151	97.9	95.6	93.6	90.4	88.9	1.4	413	0	0	1	0	1	0	15	27	15
Others	44	0	14	97.4	94.7	91.8	88.8	88.8	5.3	26	1	0	1	0	0	0	0	2	0

Table9. Method of endoscopic resection

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
ESD	5921	3	1353	98.7	96.7	94.5	92.1	89.4	0.4	4038	10	2	3	2	6	1	172	197	137
EMR	573	0	139	97.3	94.7	91.8	87.9	85.6	1.6	365	0	1	0	0	0	0	22	29	17
Others	2	0	0	100.0	50.0	50.0	50.0	50.0	35.4	1	0	0	0	0	0	0	0	1	0

Table10. En-bloc or piecemeal resection

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
En-bloc resection	6171	3	1429	98.6	96.6	94.3	91.9	89.2	0.4	4178	8	2	2	1	5	0	186	216	144
Piecemeal resection	325	0	63	97.7	95.3	93.6	88.4	87.3	2.0	226	2	1	1	1	1	1	8	11	10
Others	0	0	0							0	0	0	0	0	0	0	0	0	0

Table11. Bleeding requiring emergency surgery

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
Presence	29	0	8	88.5	84.5	84.5	71.4	61.8	10.2	12	0	0	0	0	0	0	2	7	0
Absence	6467	3	1484	98.6	96.5	94.3	91.8	89.2	0.4	4392	10	3	3	2	6	1	192	220	154

Table12. Perforation requiring emergency surgery

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
Presence	17	0	3	100.0	100.0	92.9	85.7	78.6	11.0	11	0	0	0	0	1	0	0	1	1
Absence	6479	3	1489	98.5	96.5	94.2	91.8	89.1	0.4	4393	10	3	3	2	5	1	194	226	153

Table13. Histological type

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
pap	159	0	26	96.7	96.0	95.3	90.3	86.7	2.9	114	1	0	0	0	0	0	1	11	6
tub1	5107	2	1218	98.5	96.5	94.2	91.7	89.4	0.5	3431	9	3	1	2	3	0	153	168	119
tub2	950	0	172	98.7	96.6	94.2	91.7	87.7	1.1	677	1	0	0	0	2	1	33	37	27
por	111	0	24	100.0	96.1	94.0	93.0	90.7	3.0	78	0	0	2	0	0	0	3	4	0
sig	107	1	16	98.1	97.0	96.0	94.9	89.6	3.1	81	0	0	0	0	1	0	3	5	1
muc	6	0	3	100.0	100.0	100.0	100.0	100.0		3	0	0	0	0	0	0	0	0	0
Others	67	0	33	97.9	95.5	90.5	90.5	90.5	4.5	30	0	0	0	0	0	0	1	2	1
Inconclusive	6	0	0	100.0	100.0	100.0	100.0	100.0		6	0	0	0	0	0	0	0	0	0

Table14. Depth of tumor invasion

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
M	5439	3	1254	98.8	97.0	95.0	92.5	90.0	0.4	3724	6	3	0	1	0	0	153	172	126
SM1	493	0	108	98.1	94.6	91.3	88.6	85.7	1.7	325	0	0	0	1	0	0	17	25	17
SM2 or deeper than SM2	505	0	104	96.8	93.5	90.0	87.4	84.0	1.8	331	2	0	1	0	6	1	24	25	11
Others	53	0	24	92.5	89.7	86.7	83.5	83.5	6.2	23	2	0	2	0	0	0	0	2	0
Inconclusive	21	0	2	89.5	84.2	84.2	84.2	78.9	9.4	15	1	0	0	0	0	0	0	3	0

Table15. Lymphatic invasion(ly)

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
ly(-)	6144	3	1415	98.6	96.8	94.6	92.2	89.6	0.4	4187	7	3	0	2	3	1	182	204	140
ly(+)	318	0	70	97.2	93.3	89.9	86.0	82.0	2.4	200	2	0	3	0	3	0	9	20	11
Inconclusive	51	0	7	91.9	83.3	78.9	76.7	76.7	6.2	33	2	0	0	0	0	0	3	3	3

Table16. Venous invasion(v)

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
v(-)	6304	3	1447	98.7	96.7	94.6	92.1	89.5	0.4	4297	7	3	0	2	4	1	184	211	148
v(+)	154	0	37	95.0	89.7	85.0	81.0	76.0	3.8	86	2	0	3	0	2	0	8	13	3
Inconclusive	55	0	8	92.4	86.3	82.2	80.1	80.1	5.6	37	2	0	0	0	0	0	2	3	3

Table17. UL

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
UL(-)	5588	3	1276	98.5	96.6	94.4	91.9	89.1	0.5	3796	7	3	2	1	5	0	174	199	125
UL(+)	730	0	176	99.1	96.3	94.2	91.6	89.9	1.2	492	3	0	1	1	1	1	18	21	16
Inconclusive	178	0	40	98.2	94.3	90.3	88.3	85.5	2.9	116	0	0	0	0	0	0	2	7	13

Table18. Horizontal margin

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
HM0	5833	3	1343	98.6	96.7	94.5	92.3	89.7	0.4	3981	7	2	1	1	5	0	170	192	131
HM1	288	0	67	97.0	94.6	91.3	85.4	80.5	2.6	174	3	0	2	0	0	0	13	20	9
HMX	375	0	82	98.0	94.8	92.3	88.1	86.4	1.9	249	0	1	0	1	1	1	11	15	14

Table19. Vertical margin

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri-toneal	liver rec	R	other cancer	other disease	un-known
VM0	6178	3	1421	98.7	96.7	94.6	92.1	89.5	0.4	4209	7	3	0	1	4	0	178	210	145
VM1	174	0	39	96.1	90.9	86.6	82.2	77.8	3.5	103	2	0	2	0	1	1	13	8	5
VMX	144	0	32	96.3	92.4	89.1	86.6	84.0	3.3	92	1	0	1	1	1	0	3	9	4

Table20. En-bloc resection with tumor-free margins

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri- toneal	liver rec	R	other cancer	other disease	un- known
En-bloc resection with tumor-free margins	5656	3	1295	98.7	96.9	94.7	92.5	89.9	0.4	3879	6	2	0	1	4	0	161	183	125
Positive or inconclusive resected margins	857	0	197	97.1	93.8	91.0	86.7	83.6	1.4	541	5	1	3	1	2	1	33	44	29

Table21. Curability

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri- toneal	liver rec	R	other cancer	other disease	un- known
Curative resection	3093	0	722	99.0	97.2	95.5	93.1	90.5	0.6	2125	3	1	0	1	0	0	85	91	65
Curative resection for expanded indication	1852	3	414	98.8	96.9	94.5	92.3	89.7	0.8	1275	2	1	0	0	0	0	53	64	43
Non-curative resection	1568	0	356	97.3	94.5	91.5	88.4	85.6	1.0	1020	6	1	3	1	6	1	56	72	46

Table22. Subsequent treatment for non-curative resection

categories	total number	direct death	lost f.u.	1yr(%)	2yr(%)	3yr(%)	4yr(%)	5yr(%)	S.E.at 5yr	alive	primary disease	local rec.	lymph node.	peri- toneal	liver rec	R	other cancer	other disease	un- known
No additional treatment	1020	0	269	96.2	92.6	88.8	85.6	82.8	1.3	605	4	1	2	1	1	1	43	55	38
Surgery	420	0	62	99.5	97.9	96.6	94.7	91.4	1.5	326	0	0	1	0	4	0	9	12	6
Endoscopic resection	43	0	9	100.0	97.6	97.6	94.9	94.9	3.6	32	0	0	0	0	1	0	0	1	0
Endoscopic ablation	56	0	8	100.0	100.0	94.3	83.0	81.1	5.4	38	1	0	0	0	0	0	4	3	2
Others	6	0	4	80.0	80.0	80.0	80.0	80.0	17.9	1	0	0	0	0	0	0	0	1	0