

# 胃癌学会全国登録解析結果報告 —2012年EMR/ESD症例—

## 1. 登録施設 計 205 施設

### 北海道

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 国家公務員共済組合連合会斗南病院 KKR 札幌医療センター 恵佑会第2病院  
釧路労災病院 北海道大学病院

### 東北

青森県立中央病院 三沢市立三沢病院 弘前大学大学院医学研究科 岩手医科大学 岩手県立中央病院 岩手県立磐井病院 大館市立総合病院 仙台厚生病院  
大崎市民病院 東北大学病院 宮城県立がんセンター 独立行政法人国立病院機構仙台医療センター 石巻赤十字病院 財団法人三友堂病院 福島県立医科大学  
東北労災病院

### 北陸

済生会新潟第二病院 新潟臨港病院 市立砺波総合病院 石川県立中央病院 福井県立病院 国立病院機構・敦賀医療センター 福井赤十字病院 金沢大学附属病院

### 関東

前橋赤十字病院 群馬県済生会前橋病院 群馬大学大学院消化器・肝臓・内科学 JCHO 群馬中央病院 SUBARU 健康保険組合太田記念病院  
獨協医科大学埼玉医療センター さいたま赤十字病院 上尾中央総合病院 上福岡総合病院 栃木県立がんセンター 獨協医科大学病院  
国立病院機構宇都宮病院 済生会宇都宮病院 那須赤十字病院 友愛記念病院 北茨城市民病院 筑波大学附属病院 水戸赤十字病院  
千葉大学医学部附属病院 帝京大学ちば総合医療センター 柏厚生総合病院 医療法人社団誠馨会千葉メディカルセンター 千葉県済生会習志野病院  
川崎市立川崎病院 日本医科大学武蔵小杉病院 北里大学病院 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  
独立行政法人国立病院機構横浜医療センター 聖マリアンナ医科大学病院 済生会横浜市南部病院 国立病院機構相模原病院 衣笠病院 大船中央病院  
伊勢原協同病院 済生会横浜市東部病院 日本大学病院 三井記念病院 国立がん研究センター中央病院 東京慈恵会医科大学 順天堂大学  
日本医科大学付属病院 東京大学医学部附属病院 がん・感染症センター都立駒込病院 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  
東京医科大学病院 慶應義塾大学病院 日本大学医学部附属板橋病院 杏林大学病院 公立昭和病院 東京都済生会中央病院 国際医療福祉大学三田病院  
河北総合病院 東京都立大塚病院 武蔵村山病院 社会医療法人社団慈生会等潤病院 順天堂大学練馬病院 国家公務員共済組合連合会東京共済病院  
千葉徳州会病院 国立がん研究センター東病院

## 甲信

社会医療法人財団慈泉会相澤病院 長野市民病院 JA 長野厚生連佐久総合病院佐久医療センター JA 長野厚生連南長野医療センター 篠ノ井総合病院 千曲中央病院

## 東海

静岡県立総合病院 沼津市立病院 聖隷浜松病院 浜松医科大学 磐田市立総合病院 富士市立中央病院 聖隷富士病院 朝日大学病院  
愛知県がんセンター中央病院 愛知医科大学病院 名古屋市立西部医療センター 江南厚生病院 四日市市立四日市病院 三重県立志摩病院 岐阜大学

## 近畿

滋賀県立総合病院 滋賀医科大学 滋賀医科大学 市立長浜病院 済生会滋賀県病院 住友病院 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 大阪国際がんセンター 箕面市立病院 市立吹田市民病院 関西医科大学附属病院 松下記念病院 市立ひらかた病院 市立貝塚病院  
景岳会南大阪病院 高槻赤十字病院 ベルランド総合病院 医療法人春秋会城山病院 医療法人仙養会北摂総合病院 京都府立医科大学  
京都大学医学部附属病院消化器内科 京都大学医学部附属病院消化管外科 社会福祉法人京都社会事業財団西陣病院 社会福祉法人恩賜財団済生会中和病院  
市立奈良病院 和歌山県立医科大学 宝塚市立病院 兵庫医科大学 市立伊丹病院 兵庫県立丹波医療センター  
社会医療法人財団聖フランシスコ会姫路聖マリア病院 兵庫県立がんセンター 地方独立行政法人加古川市民病院機構加古川中央市民病院  
神戸大学医学部附属病院 赤穂市民病院 一般財団法人甲南会南病院 大阪中央病院

## 中国

松江市立病院 岡山大学病院 総合病院水島協同病院 薬師寺慈恵病院 岡山労災病院 チクバ外科・胃腸科・肛門科病院 川崎医科大学附属総合医療センター  
独立行政法人国立病院機構福山医療センター 広島大学病院 広島記念病院 広島市立広島市民病院 広島共立病院  
一般財団法人防府消化器病センター防府胃腸病院 鳥取大学医学部附属病院

## 四国

三豊総合病院 四国がんセンター 愛媛県立新居浜病院 徳島赤十字病院 高知赤十字病院 高知医療センター

## 九州

国立病院機構九州がんセンター 福岡大学筑紫病院 社会医療法人財団池友会 福岡和白病院 福岡山王病院 社会医療法人社団至誠会木村病院  
戸畑共立病院 原三信病院 社会医療法人天神会新古賀病院 地方独立行政法人大牟田市立総合病院 一般社団法人朝倉医師会朝倉医師会病院  
佐賀大学医学部附属病院 長崎大学病院 佐世保市総合医療センター 佐世保共済病院 井上病院 長崎県対馬病院 熊本地域医療センター  
熊本大学医学部附属病院 熊本労災病院 荒尾市民病院 大分医療センター 大分県立病院 大分大学医学部附属病院 大分県厚生連鶴見病院

## 九州つづき

天心堂へつぎ病院 大分中村病院 古賀総合病院 鹿児島大学病院 公益法人鹿児島共済会 南風病院 公益社団法人出水郡医師会広域医療センター

## 沖縄

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 9,999 例

## 3. 対象症例

登録対象は2012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. 24.0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	71.7	±8.963
	-39	20	(0.2%)
	40-59	835	(8.4%)
	60-79	7,121	(71.2%)
	80-	2,019	(20.2%)
	Data unavailable	4	(0.0%)
Sex	Male	7,466	(74.7%)
	Female	2,530	(25.3%)
	Unknown	2	(0.0%)
	Data unavailable	1	(0.0%)
Prior endoscopic treatment	-	9,610	(96.2%)
	+	366	(3.7%)
	Unknown	9	(0.1%)
	Data unavailable	14	(0.0%)
Stomach condition	Normal stomach	9,626	(96.3%)
	Remnant stomach	310	(3.1%)
	Gastric tube	61	(0.6%)
	Data unavailable	2	(0.0%)
Tumor location	U	1,693	(16.9%)
	M	3,729	(37.3%)
	L	4,550	(45.5%)
	Unknown	26	(0.3%)
	Data unavailable	1	(0.0%)
Cross-sectional parts	Less	4,145	(41.5%)
	Gre	1,944	(19.4%)
	Ant	1,784	(17.8%)
	Post	2,065	(20.7%)
	Unknown	58	(0.6%)
	Data unavailable	3	(0.0%)
Macroscopic type	Depressed type	5,134	(51.4%)
	Elevated type	3,872	(38.7%)
	Mixed type	935	(9.4%)
	Others	6	(0.1%)
	Unknown	50	(0.5%)
	Data unavailable	2	(0.0%)
Method of endoscopic resection	ESD	9,792	(97.9%)
	EMR	193	(1.9%)
	Others	11	(0.1%)
	Unknown	2	(0.0%)
	Data unavailable	1	(0.0%)
En-bloc or piecemeal resection	En-bloc resection	9,831	(98.3%)
	Piecemeal resection	144	(1.4%)
	Unknown	22	(0.2%)
	Data unavailable	2	(0.0%)
Bleeding requiring emergency surgery	Presence	88	(0.9%)
	Absence	9,899	(99.0%)
	Unknown	9	(0.1%)
	Data unavailable	3	(0.0%)
Perforation requiring emergency surgery	Presence	28	(0.3%)
	Absence	9,959	(99.6%)
	Unknown	9	(0.1%)
	Data unavailable	3	(0.0%)
Histological type	pap	208	(2.1%)
	tub1	7,937	(79.4%)
	tub2	1,365	(13.7%)
	por	202	(2.0%)
	sig	210	(2.1%)
	muc	3	(0.0%)
	Others	41	(0.4%)
	Inconclusive	9	(0.1%)
	Unknown	20	(0.2%)
	Data unavailable	4	(0.0%)

Depth of tumor invasion	M	8,437	(84.4%)
	SM1	793	(7.9%)
	SM2 or deeper than SM2	717	(7.2%)
	Others	22	(0.2%)
	Inconclusive	3	(0.0%)
	Unknown	24	(0.2%)
	Data unavailable	3	(0.0%)
Lymphatic invasion(ly)	-	9,387	(93.9%)
	+	525	(5.3%)
	Inconclusive	34	(0.3%)
	Unknown	50	(0.5%)
	Data unavailable	3	(0.0%)
Venous invasion(v)	-	9,635	(96.4%)
	+	277	(2.8%)
	Inconclusive	32	(0.3%)
	Unknown	52	(0.5%)
	Data unavailable	3	(0.0%)
UL	-	8,498	(85.0%)
	+	906	(9.1%)
	Inconclusive	72	(0.7%)
	Unknown	522	(5.2%)
	Data unavailable	1	(0.0%)
Horizontal margin	HM0	9,454	(94.5%)
	HM1	228	(2.3%)
	HMX	316	(3.2%)
	Data unavailable	1	(0.0%)
Vertical margin	VM0	9,603	(96.0%)
	VM1	207	(2.1%)
	VMX	188	(1.9%)
	Data unavailable	1	(0.0%)
En-bloc resection with tumor-free margins	En-bloc resection with tumor-free margins	9,193	(91.9%)
	Positive or inconclusive resected margins	806	(8.1%)
Curability	Curative resection	5,378	(53.8%)
	Curative resection for expanded indication	2,658	(26.6%)
	Non-curative resection	1,963	(19.6%)
Subsequent treatment for non-curative resection	No additional treatment	1,235	(62.9%)
	Surgery	643	(32.8%)
	Endoscopic resection	16	(0.8%)
	Endoscopic ablation	43	(2.2%)
	Others	3	(0.2%)
	Unknown	22	(1.1%)
	Data unavailable	1	(0.1%)
<i>H. pylori</i> infection	-	2,210	(22.1%)
	+	4,258	(42.6%)
	Unknown	3,530	(35.3%)
	Data unavailable	1	(0.0%)
Eradication therapy in <i>H. pylori</i> -positive cases	Not performed	787	(18.5%)
	Performed	3,116	(73.2%)
	Unknown	354	(8.3%)
	Data unavailable	1	(0.0%)
Total		9,999	(100.0%)

Methods of endoscopic resection		ESD	EMR
Age	mean±SD	71.7 ±8.965	73.2 ±8.844
	-39	20 (0.2%)	0 (0.0%)
	40-59	820 (8.4%)	15 (7.8%)
	60-79	6,979 (71.3%)	133 (68.9%)
	80-	1,970 (20.1%)	45 (23.3%)
	Data unavailable	3 (0.0%)	0 (0.0%)
Sex	Male	7,334 (74.9%)	125 (64.8%)
	Female	2,456 (25.1%)	68 (35.2%)
	Unknown	2 (0.0%)	0 (0.0%)
Prior endoscopic treatment	-	9,416 (96.3%)	181 (94.3%)
	+	355 (3.6%)	11 (5.7%)
	Unknown	9 (0.1%)	0 (0.0%)
	Data unavailable	12 (0.0%)	1 (0.0%)
Stomach condition	Normal stomach	9,442 (96.4%)	173 (90.1%)
	Remnant stomach	291 (3.0%)	17 (8.9%)
	Gastric tube	59 (0.6%)	2 (1.0%)
	Data unavailable	0 (0.0%)	1 (0.0%)
Tumor location	U	1,640 (16.7%)	49 (25.4%)
	M	3,659 (37.4%)	65 (33.7%)
	L	4,468 (45.6%)	78 (40.4%)
	Unknown	25 (0.3%)	1 (0.5%)
Cross-sectional parts	Less	4,090 (41.8%)	52 (27.1%)
	Gre	1,872 (19.1%)	67 (34.9%)
	Ant	1,758 (18.0%)	24 (12.5%)
	Post	2,020 (20.6%)	42 (21.9%)
	Unknown	51 (0.5%)	7 (3.6%)
	Data unavailable	1 (0.0%)	1 (0.0%)
Macroscopic type	Depressed type	5,088 (52.0%)	43 (22.3%)
	Elevated type	3,731 (38.1%)	132 (68.4%)
	Mixed type	934 (9.5%)	1 (0.5%)
	Others	5 (0.1%)	1 (0.5%)
	Unknown	33 (0.3%)	16 (8.3%)
	Data unavailable	1 (0.0%)	0 (0.0%)
En-bloc or piecemeal resection	En-bloc resection	9,663 (98.7%)	160 (82.9%)
	Piecemeal resection	113 (1.2%)	30 (15.5%)
	Unknown	15 (0.2%)	3 (1.6%)
	Data unavailable	1 (0.0%)	0 (0.0%)
Bleeding requiring emergency surgery	Presence	88 (0.9%)	0 (0.0%)
	Absence	9,693 (99.0%)	193 (100.0%)
	Unknown	9 (0.1%)	0 (0.0%)
	Data unavailable	2 (0.0%)	0 (0.0%)
Perforation requiring emergency surgery	Presence	27 (0.3%)	0 (0.0%)
	Absence	9,756 (99.6%)	191 (99.0%)
	Unknown	7 (0.1%)	2 (1.0%)
	Data unavailable	2 (0.0%)	0 (0.0%)
Histological type	pap	193 (2.0%)	14 (7.3%)
	tub1	7,778 (79.4%)	151 (78.6%)
	tub2	1,351 (13.8%)	13 (6.8%)
	por	199 (2.0%)	3 (1.6%)
	sig	205 (2.1%)	4 (2.1%)
	muc	3 (0.0%)	0 (0.0%)
	Others	36 (0.4%)	5 (2.6%)
	Inconclusive	9 (0.1%)	0 (0.0%)
	Unknown	16 (0.2%)	2 (1.0%)
	Data unavailable	2 (0.0%)	1 (0.0%)

		ESD	EMR
Depth of tumor invasion	M	8,266 (84.4%)	162 (83.9%)
	SM1	776 (7.9%)	16 (8.3%)
	SM2 or deeper than SM2	706 (7.2%)	10 (5.2%)
	Others	20 (0.2%)	2 (1.0%)
	Inconclusive	2 (0.0%)	1 (0.5%)
	Unknown	20 (0.2%)	2 (1.0%)
	Data unavailable	2 (0.0%)	0 (0.0%)
Lymphatic invasion(ly)	-	9,198 (93.9%)	179 (92.7%)
	+	517 (5.3%)	8 (4.1%)
	Inconclusive	33 (0.3%)	1 (0.5%)
	Unknown	42 (0.4%)	5 (2.6%)
	Data unavailable	2 (0.0%)	0 (0.0%)
Venous invasion(v)	-	9,441 (96.4%)	184 (95.3%)
	+	274 (2.8%)	3 (1.6%)
	Inconclusive	31 (0.3%)	1 (0.5%)
	Unknown	44 (0.4%)	5 (2.6%)
	Data unavailable	2 (0.0%)	0 (0.0%)
UL	-	8,332 (85.1%)	157 (81.3%)
	+	901 (9.2%)	4 (2.1%)
	Inconclusive	69 (0.7%)	3 (1.6%)
	Unknown	490 (5.0%)	29 (15.0%)
Horizontal margin	HM0	9,313 (95.1%)	133 (68.9%)
	HM1	215 (2.2%)	12 (6.2%)
	HMX	264 (2.7%)	48 (24.9%)
	Data unavailable	0 (0.0%)	0 (0.0%)
Vertical margin	VM0	9,434 (96.3%)	159 (82.4%)
	VM1	200 (2.0%)	7 (3.6%)
	VMX	158 (1.6%)	27 (14.0%)
En-bloc resection with tumor-free margins	En-bloc resection with tumor-free margins	9,062 (92.5%)	124 (64.2%)
	Positive or inconclusive resected margins	730 (7.5%)	69 (35.8%)
Curability	Curative resection	5,296 (54.1%)	80 (41.5%)
	Curative resection for expanded indication	2,635 (26.9%)	20 (10.4%)
	Non-curative resection	1,861 (19.0%)	93 (48.2%)
Subsequent treatment for non-curative resection	No additional treatment	1,156 (62.1%)	74 (79.6%)
	Surgery	627 (33.7%)	13 (14.0%)
	Endoscopic resection	15 (0.8%)	1 (1.1%)
	Endoscopic ablation	39 (2.1%)	4 (4.3%)
	Others	3 (0.2%)	0 (0.0%)
	Unknown	21 (1.1%)	1 (1.1%)
<i>H. pylori</i> infection	-	2,161 (22.1%)	46 (23.8%)
	+	4,200 (42.9%)	57 (29.5%)
	Unknown	3,431 (35.0%)	90 (46.6%)
Eradication therapy in <i>H. pylori</i> -positive cases	Not performed	778 (18.5%)	8 (14.0%)
	Performed	3,072 (73.1%)	44 (77.2%)
	Unknown	349 (8.3%)	5 (8.8%)
	Data unavailable	1 (0.0%)	0 (0.0%)
Total		9,792 (100.0%)	193 (100.0%)

## Survival curve of patients

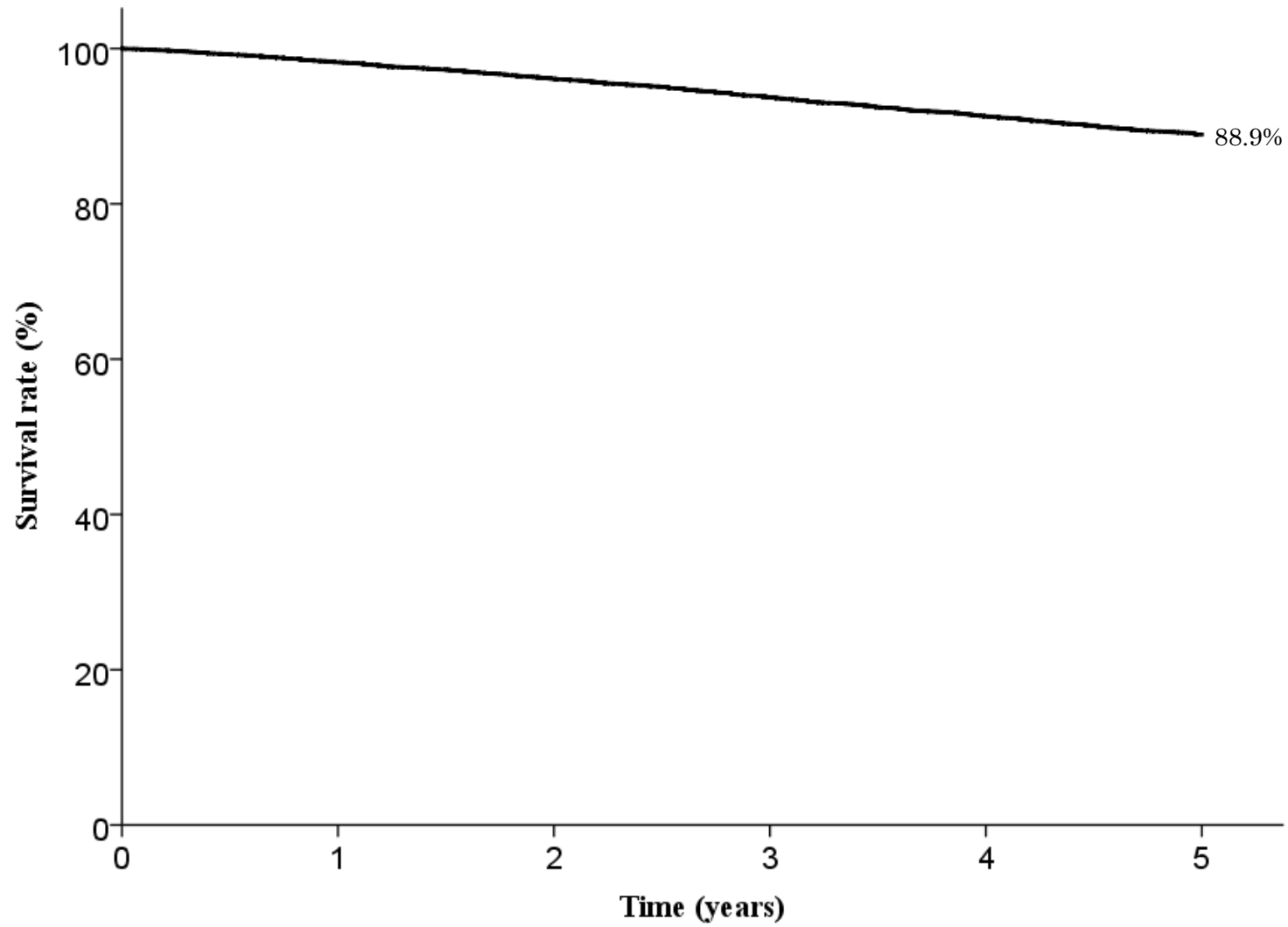


Fig. 1. Five year survival rates for all patients

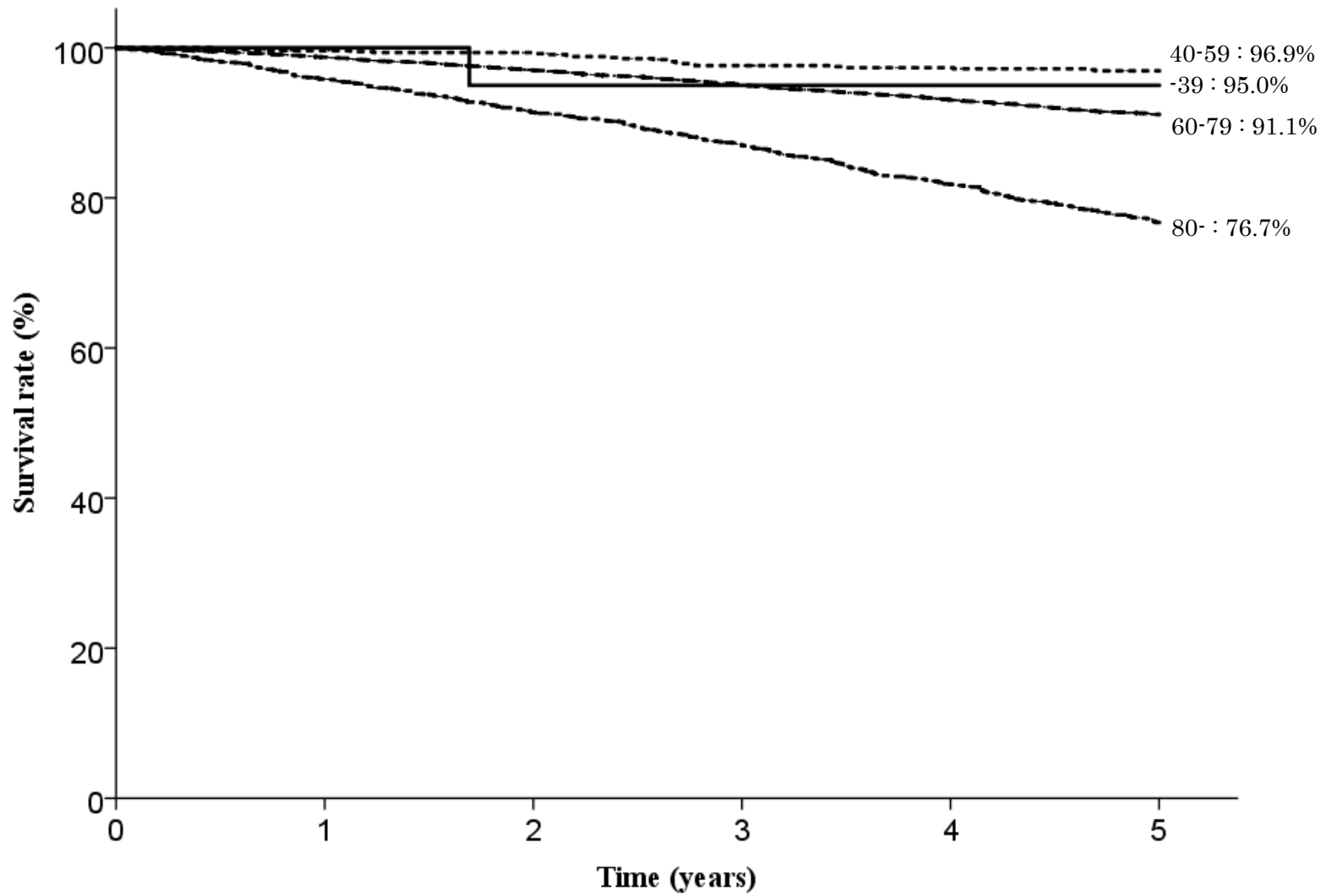


Fig. 2. Five year survival rates stratified by age

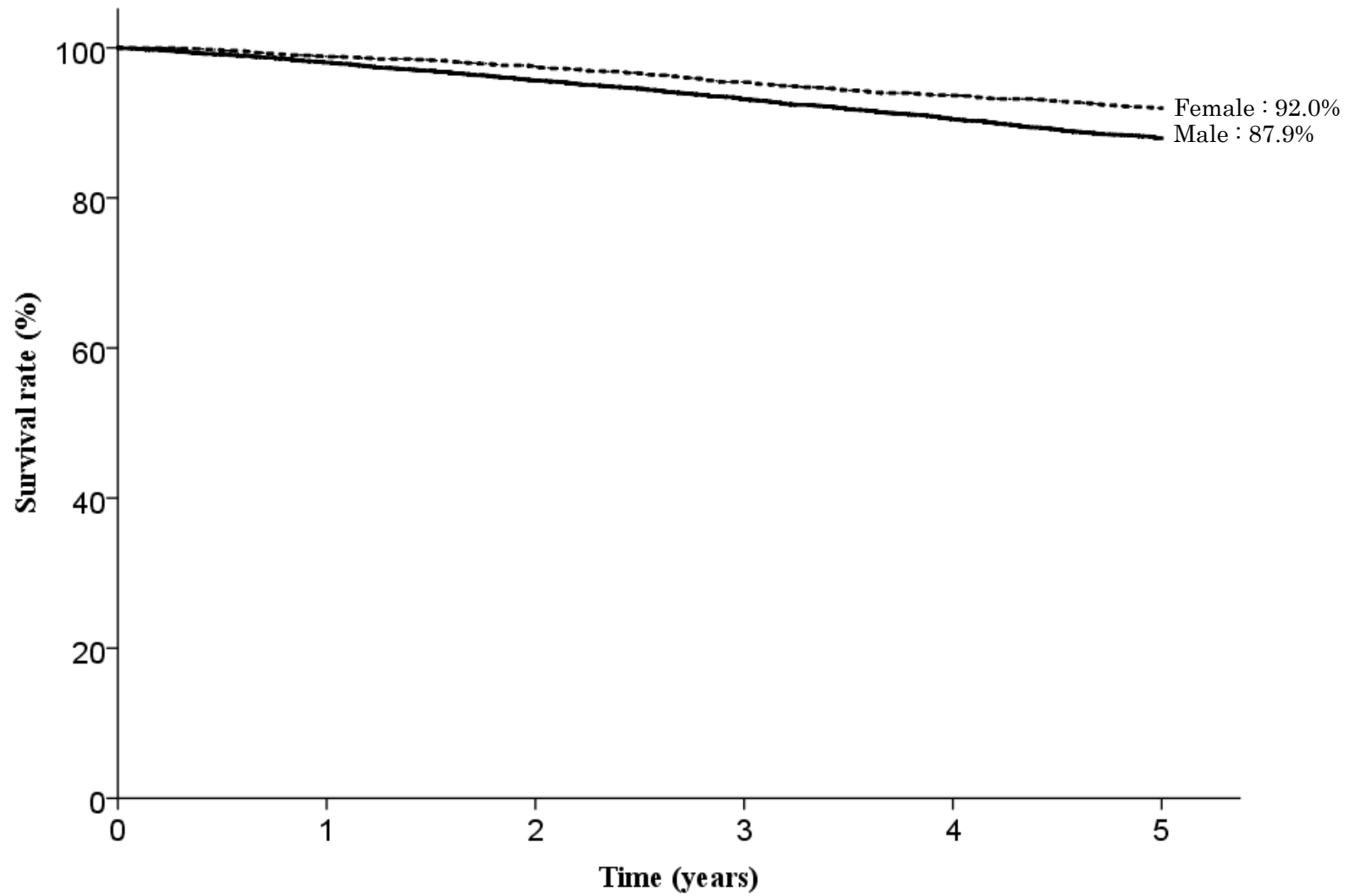


Fig. 3. Five year survival rates stratified by sex



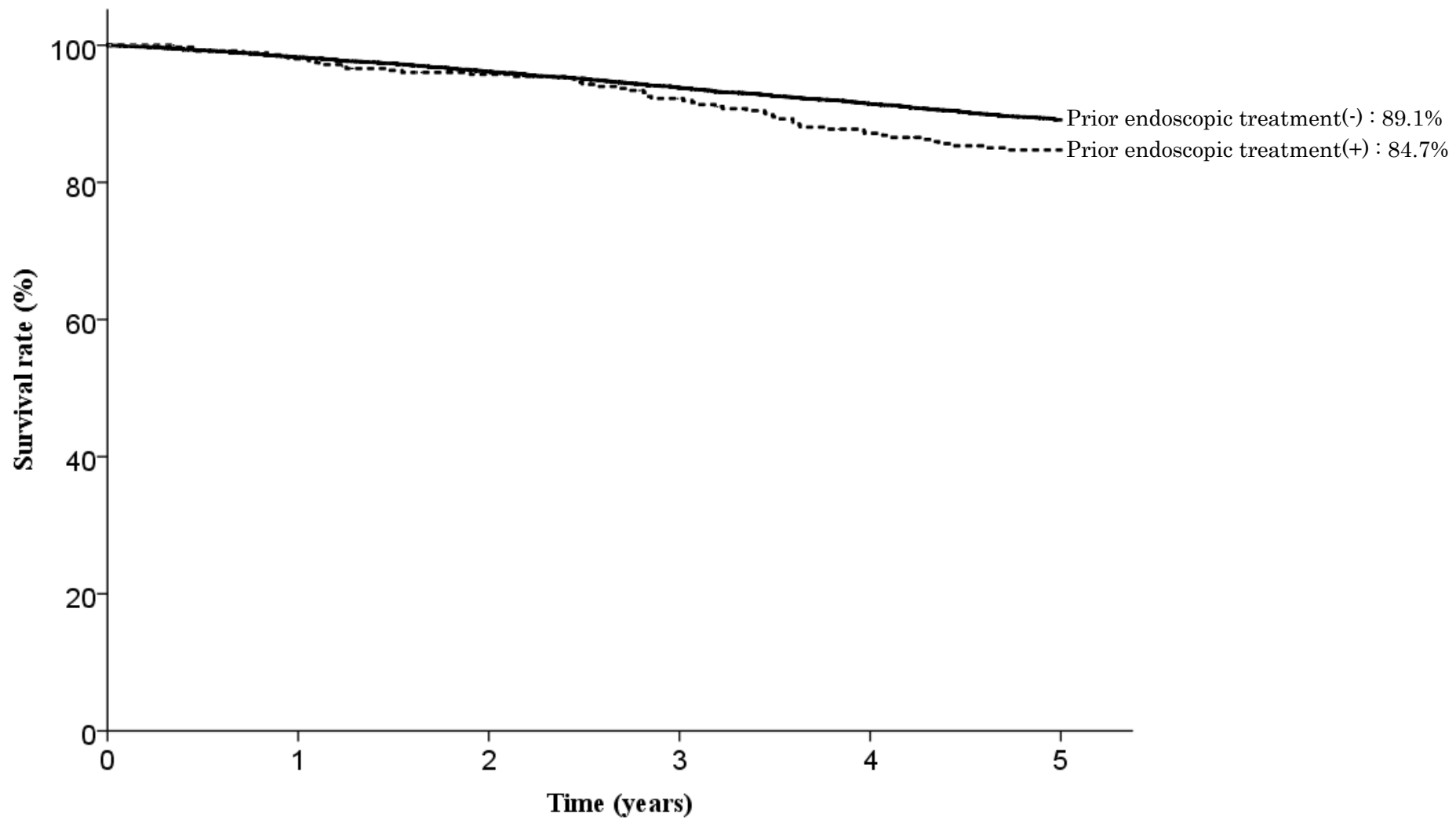


Fig. 4. Five year survival rates stratified by prior endoscopic treatment

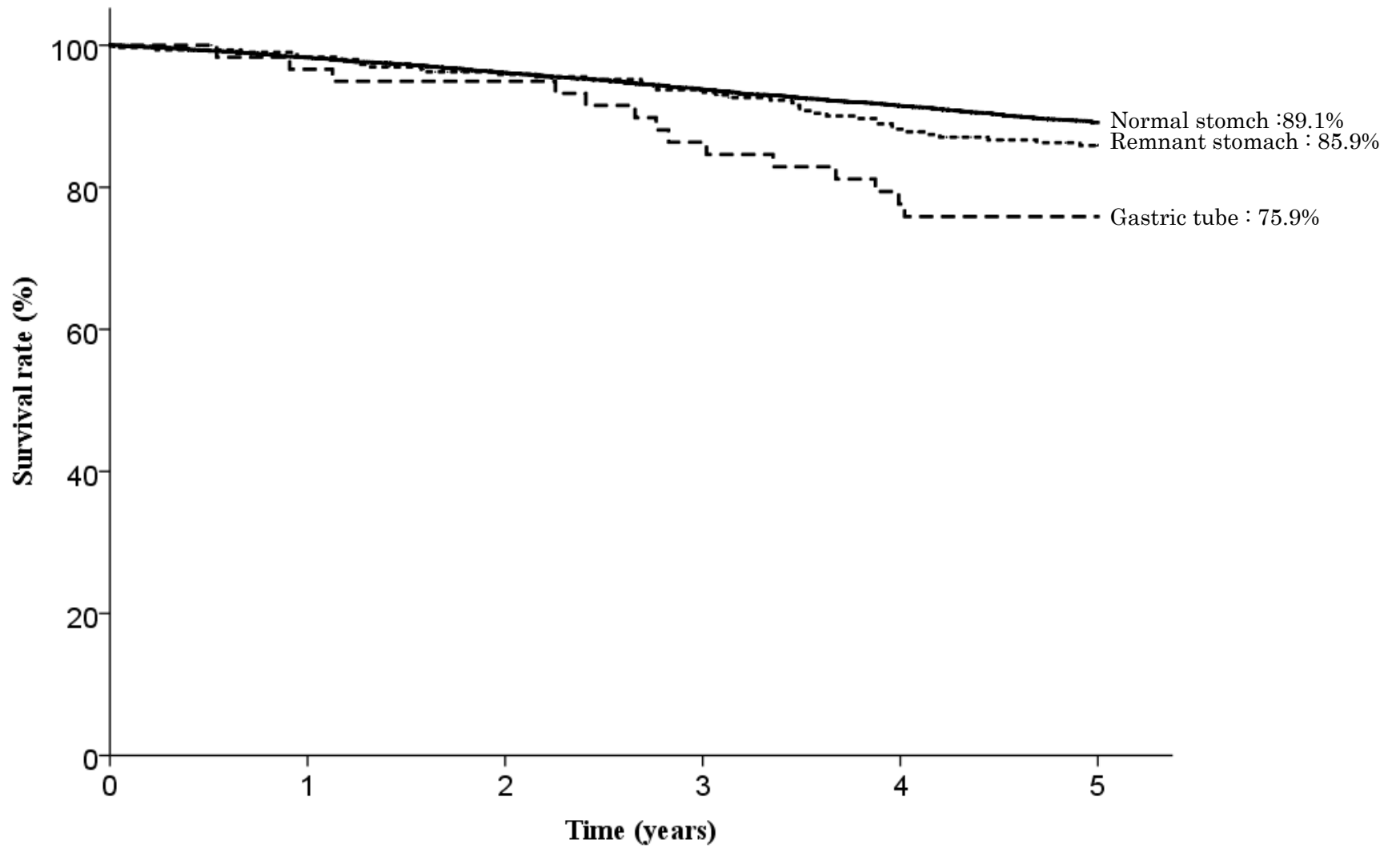


Fig. 5. Five year survival rates stratified by stomach condition

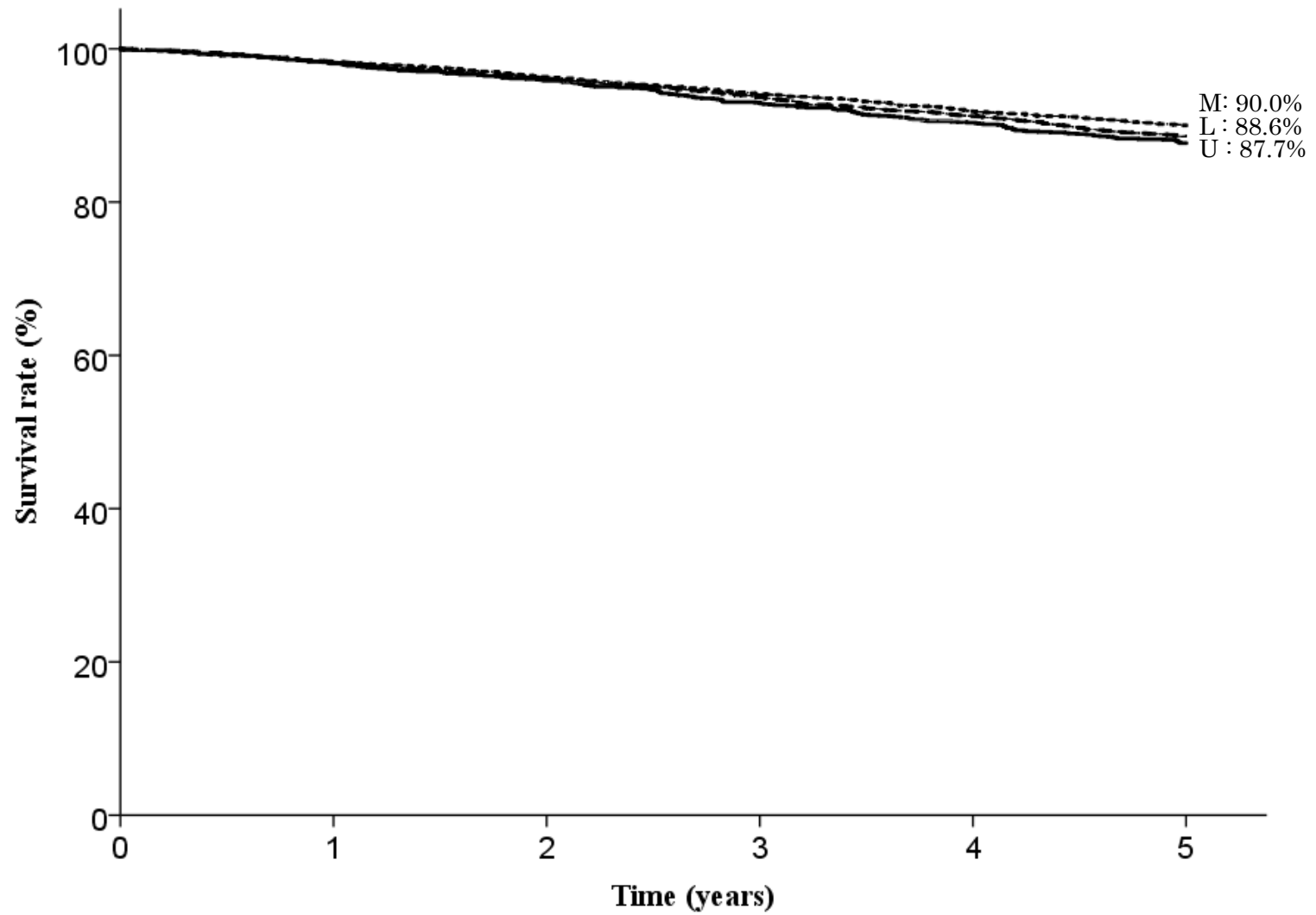


Fig. 6. Five year survival rates stratified by tumor location

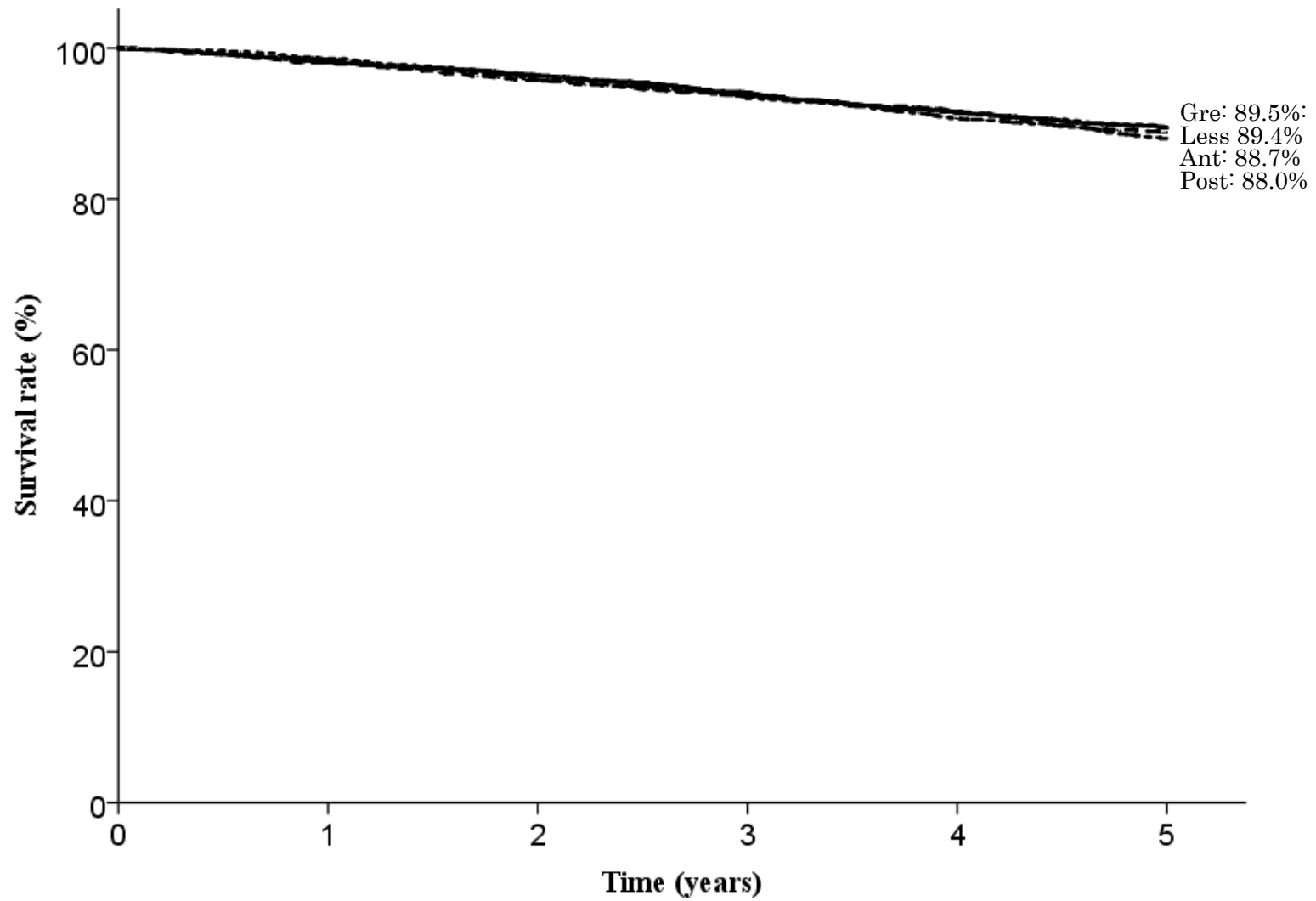


Fig. 7. Five year survival rates stratified by cross-sectional parts

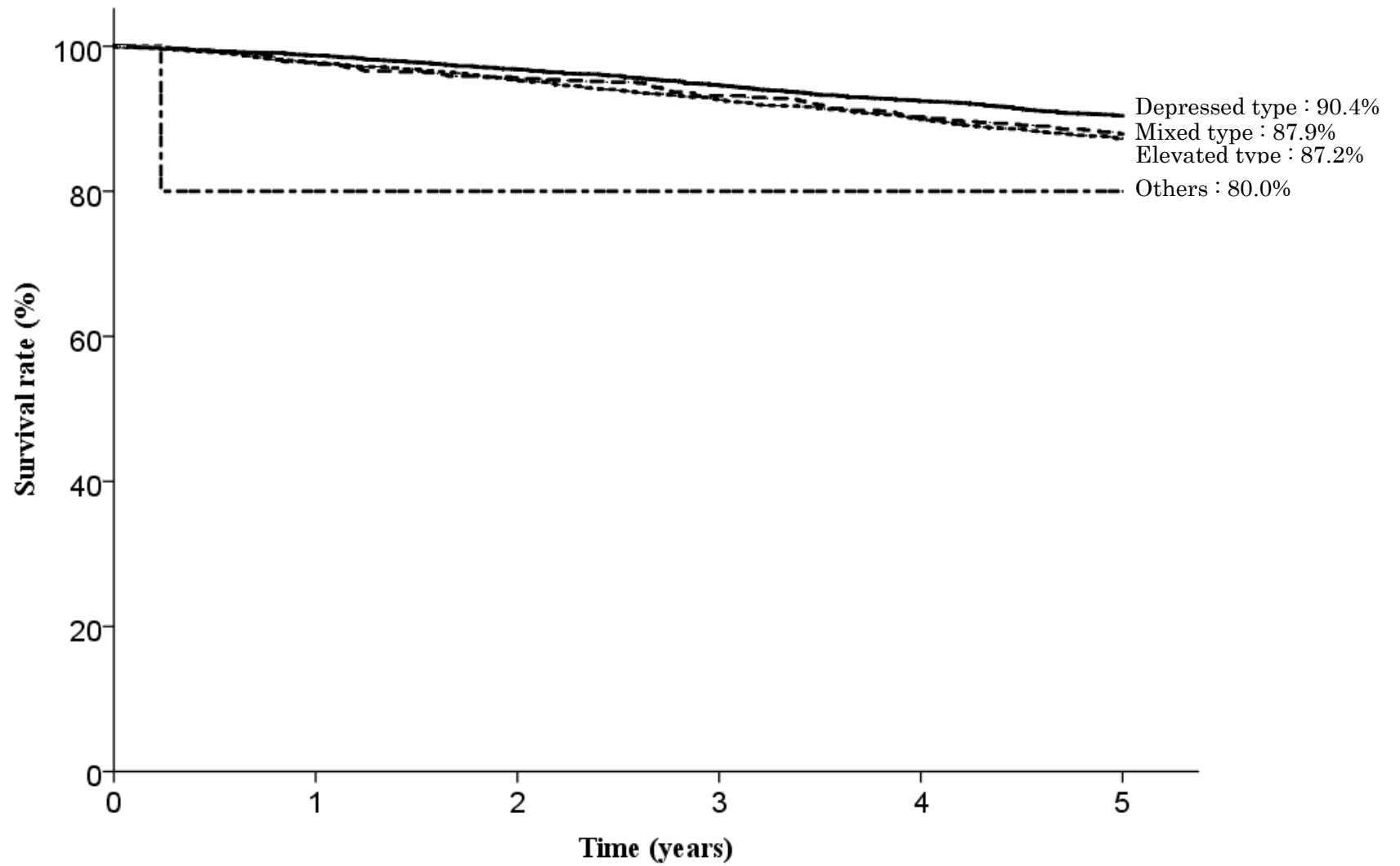


Fig. 8. Five year survival rates stratified by macroscopic type

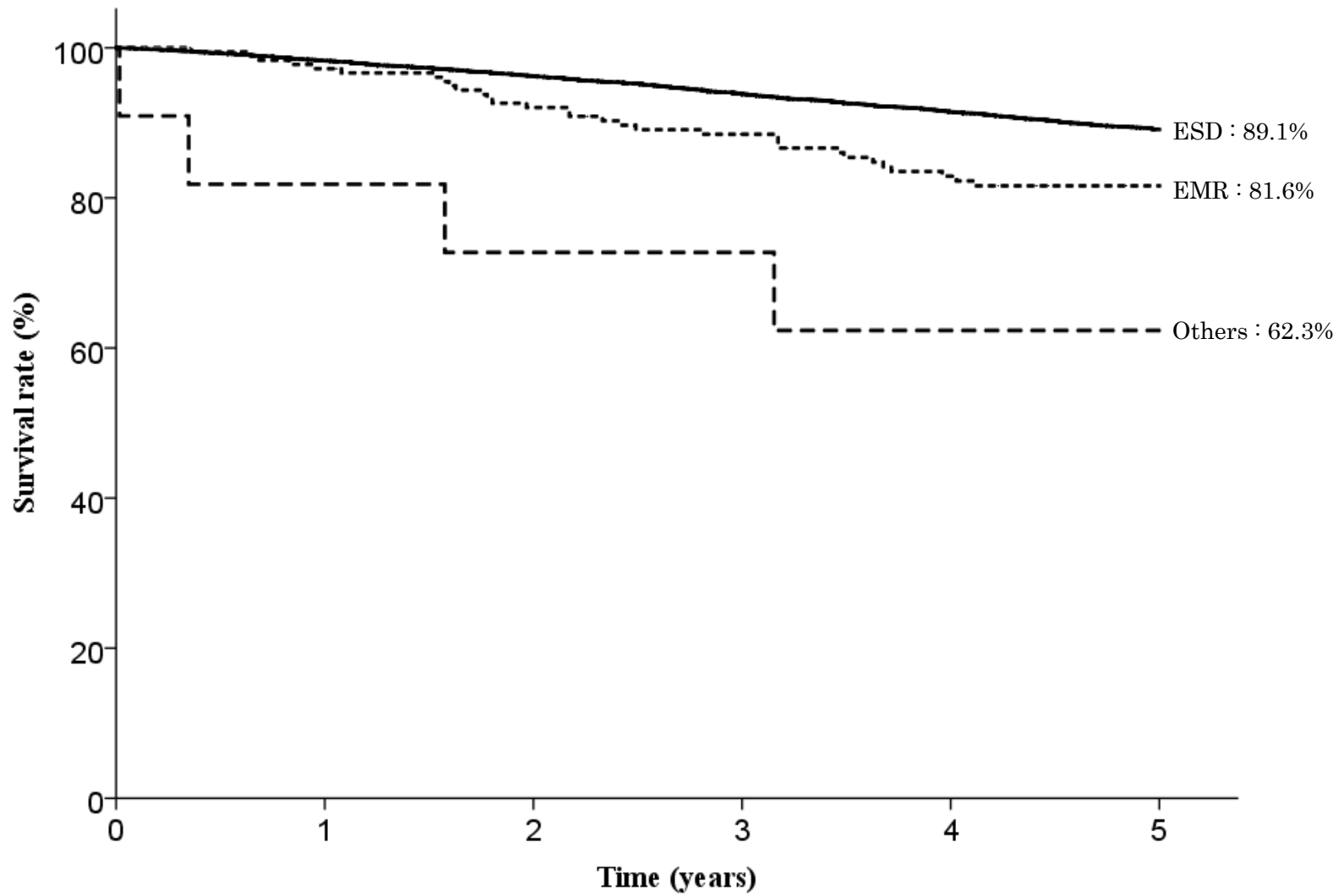


Fig. 9. Five year survival rates stratified by method of endoscopic resection

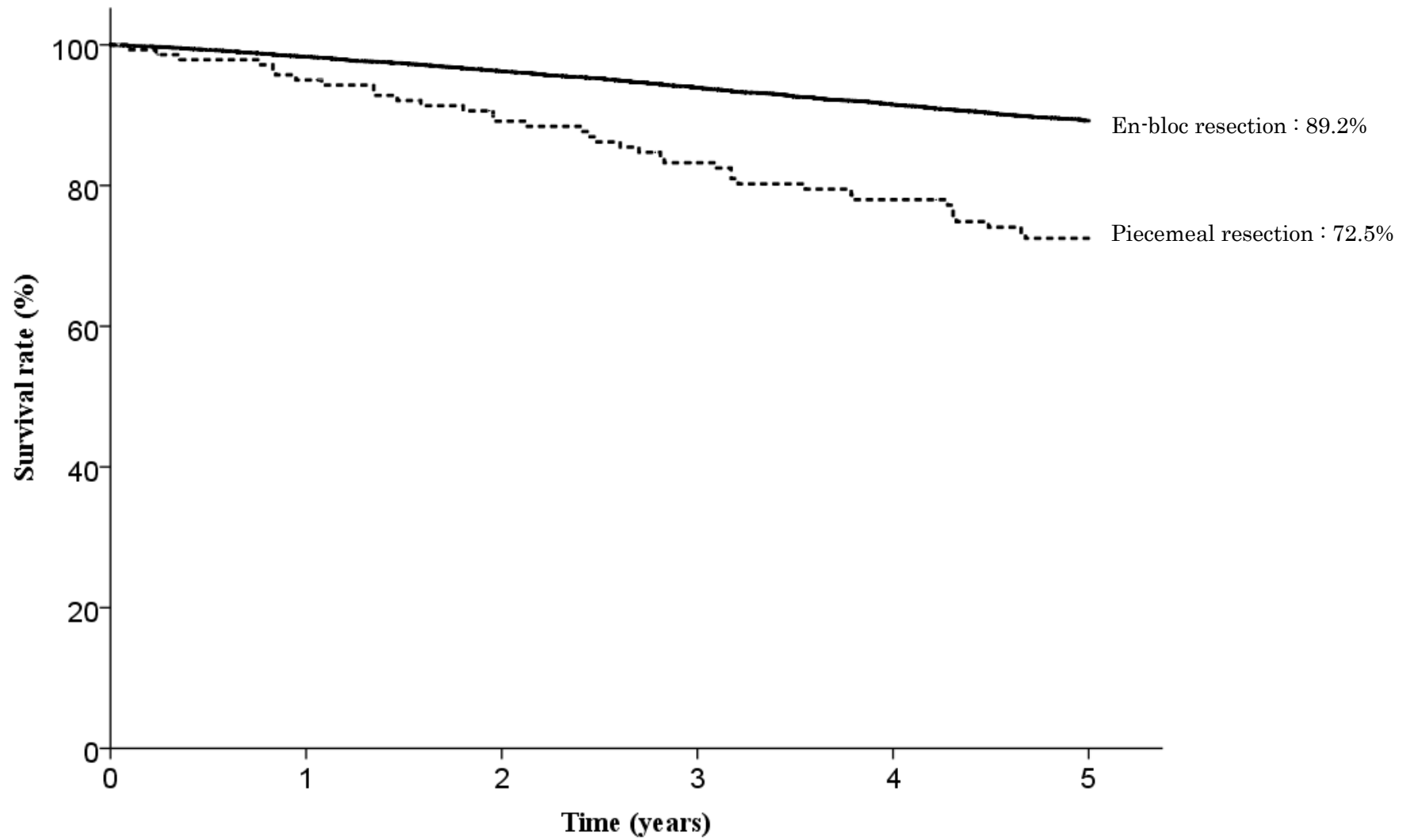


Fig. 10. Five year survival rates stratified by en-bloc or piecemeal resection

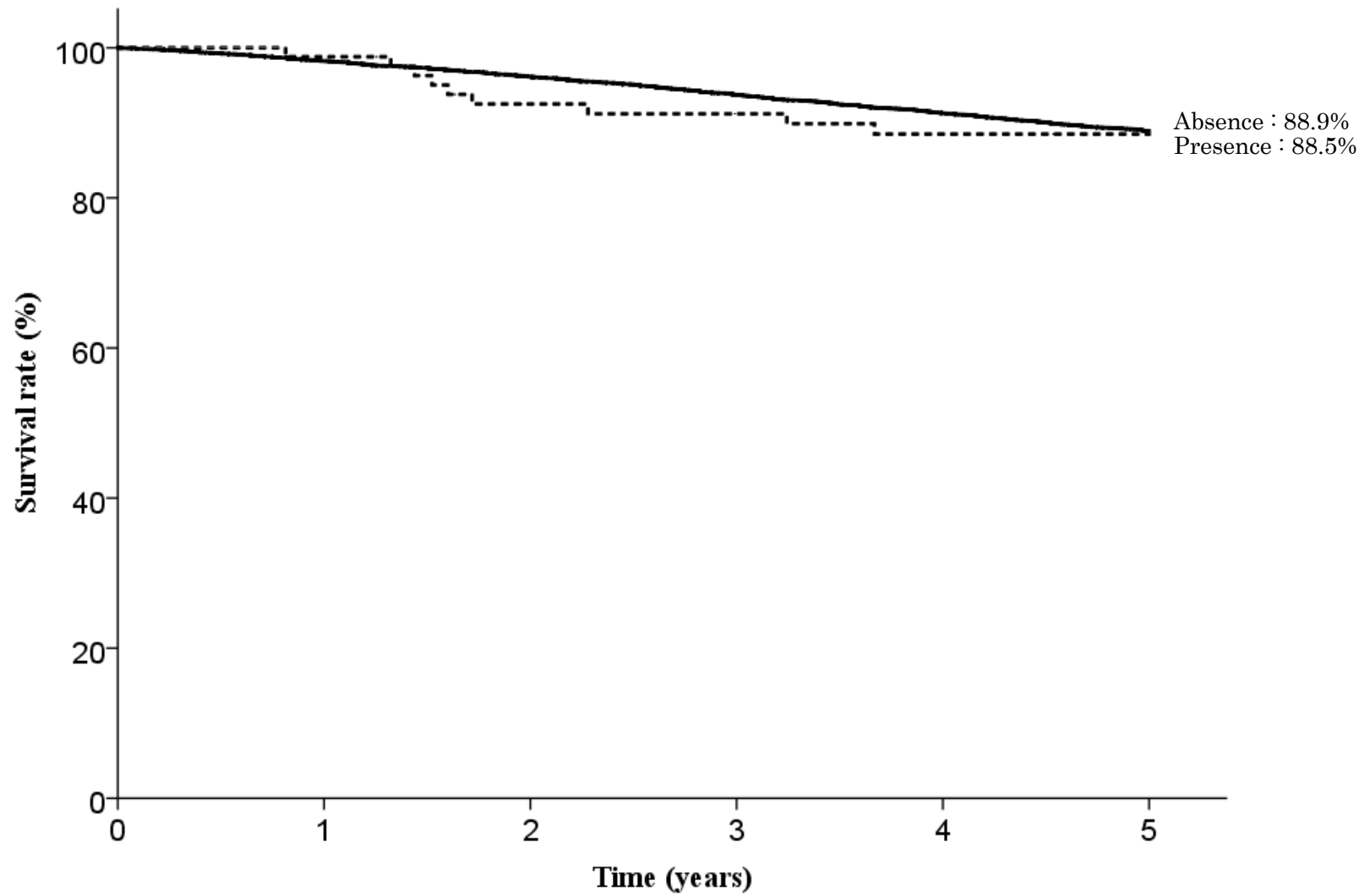


Fig. 11. Five year survival rates stratified by bleeding requiring emergency surgery



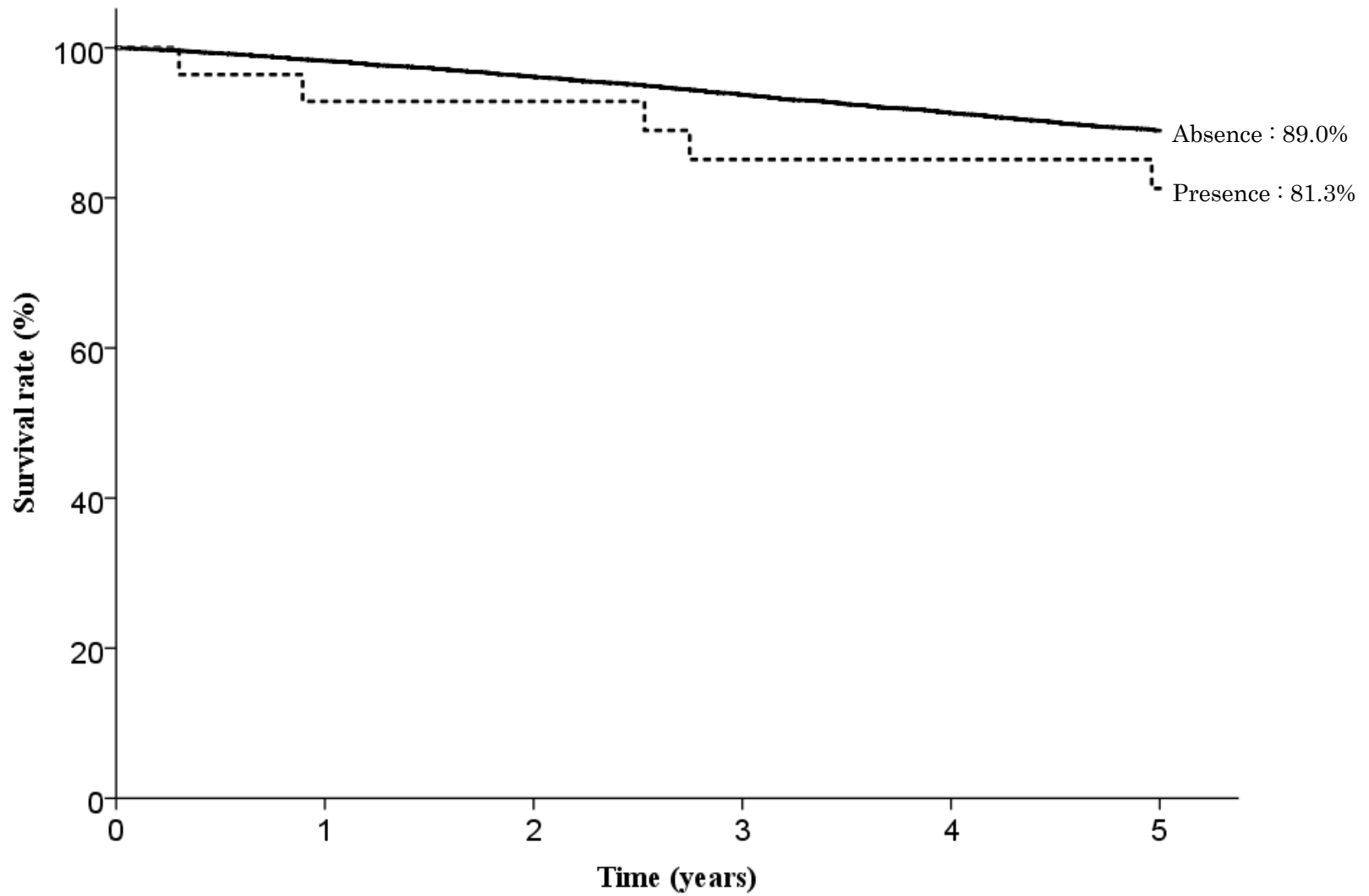


Fig. 12. Five year survival rates stratified by perforation requiring emergency surgery

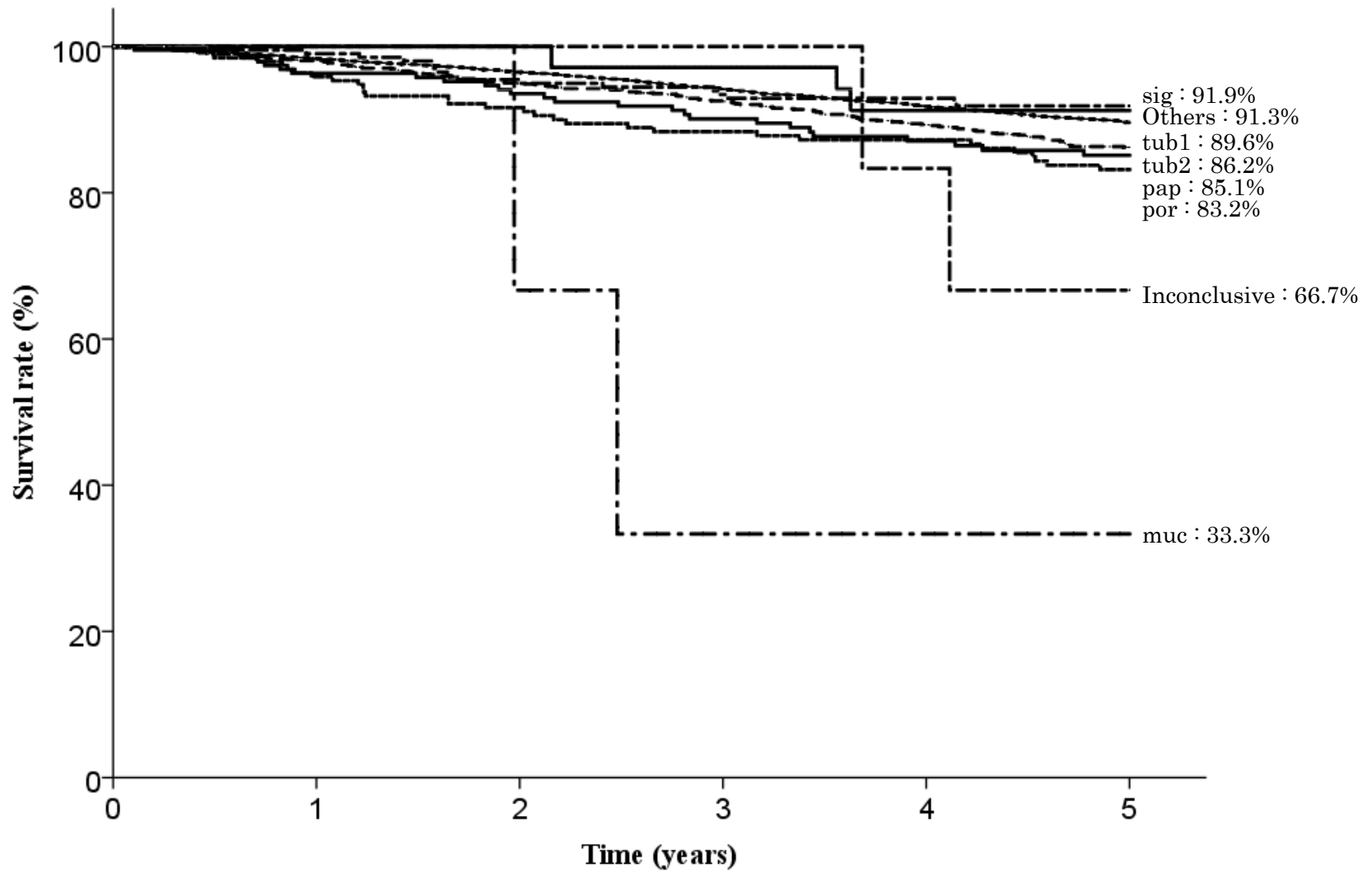


Fig. 13. Five year survival rates stratified by histological type

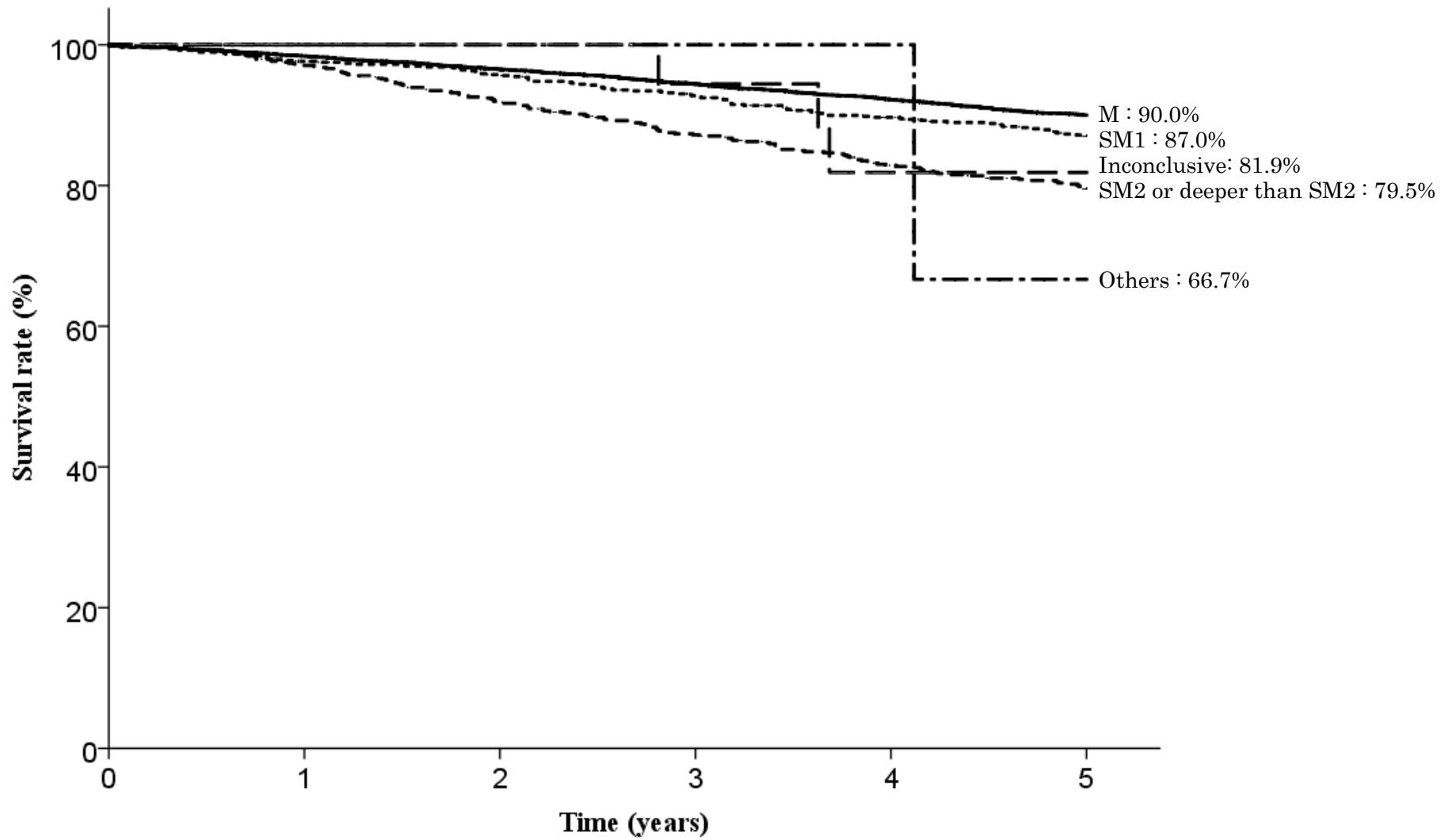


Fig. 14. Five year survival rates stratified by depth of tumor invasion

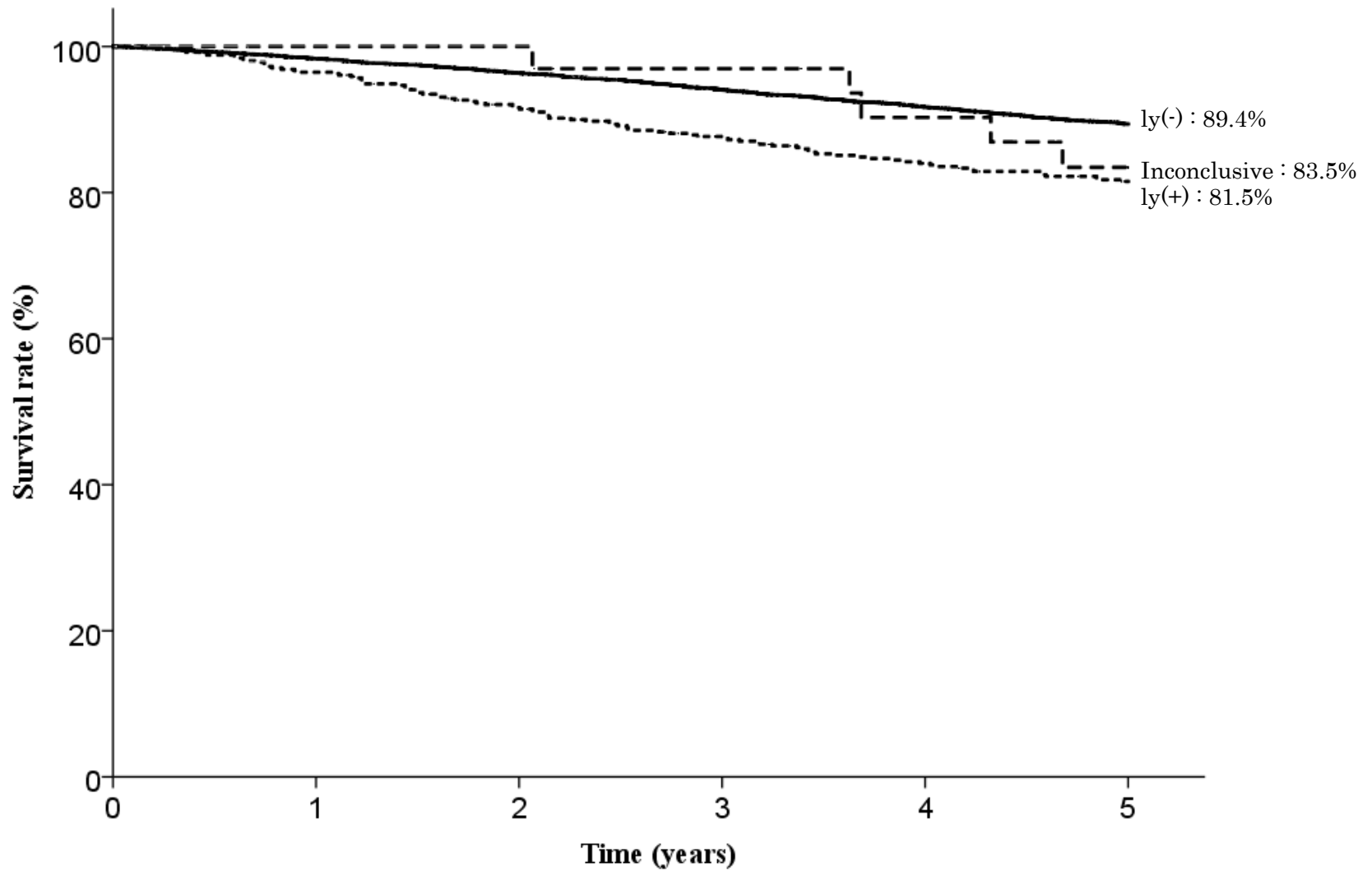


Fig. 15. Five year survival rates stratified by lymphatic invasion

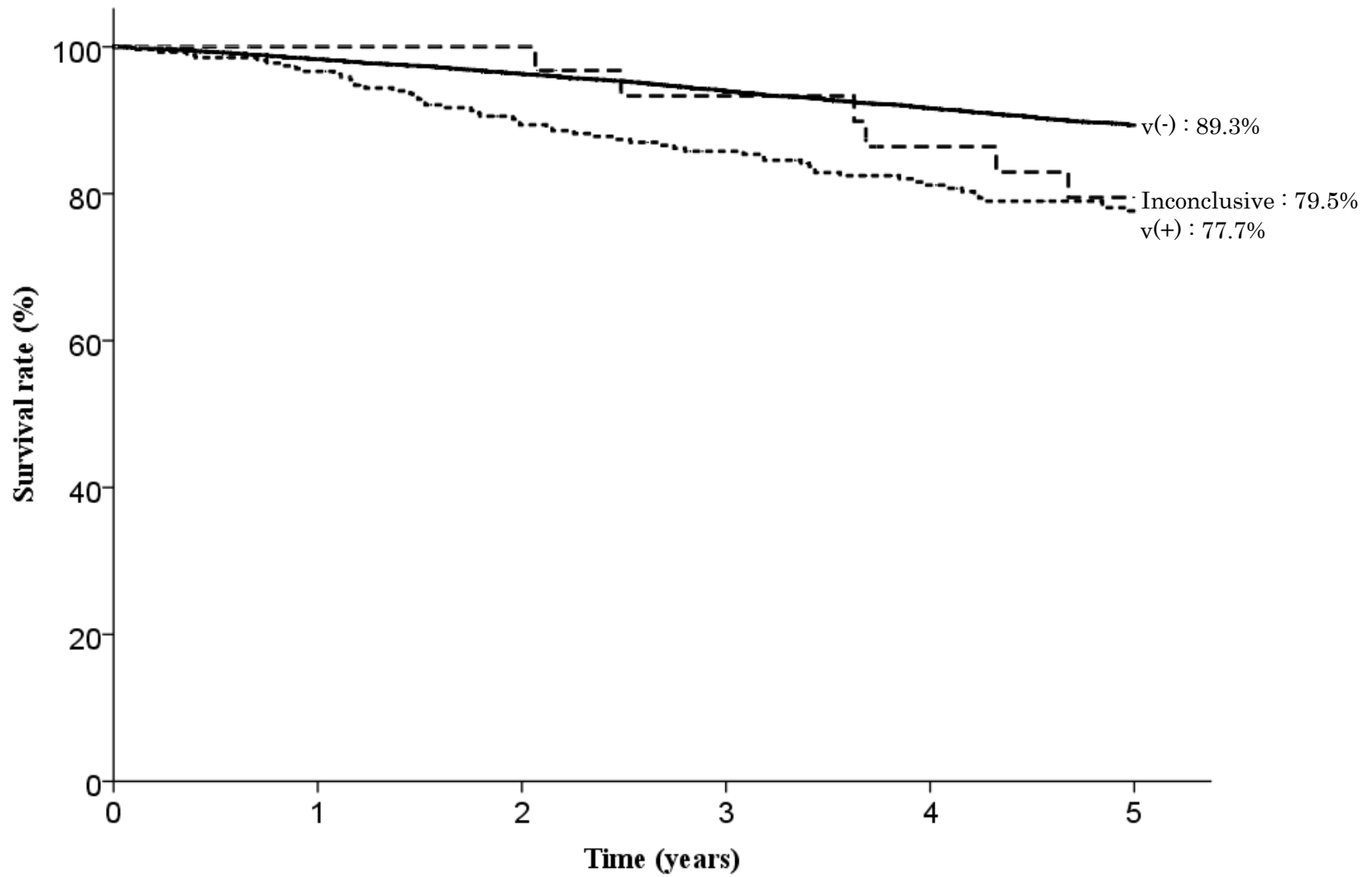


Fig. 16. Five year survival rates stratified by venous invasion

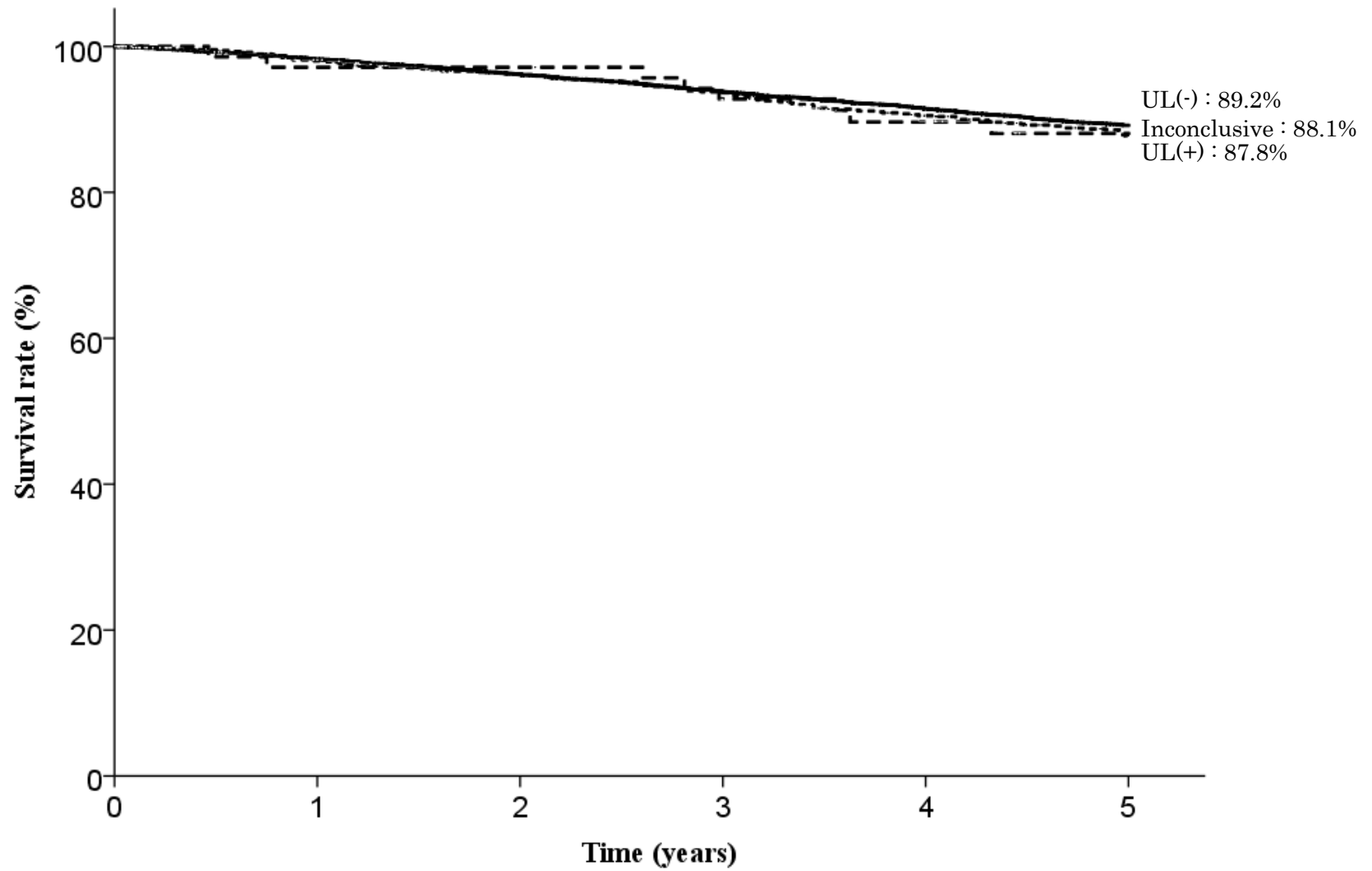


Fig. 17. Five year survival rates stratified by UL

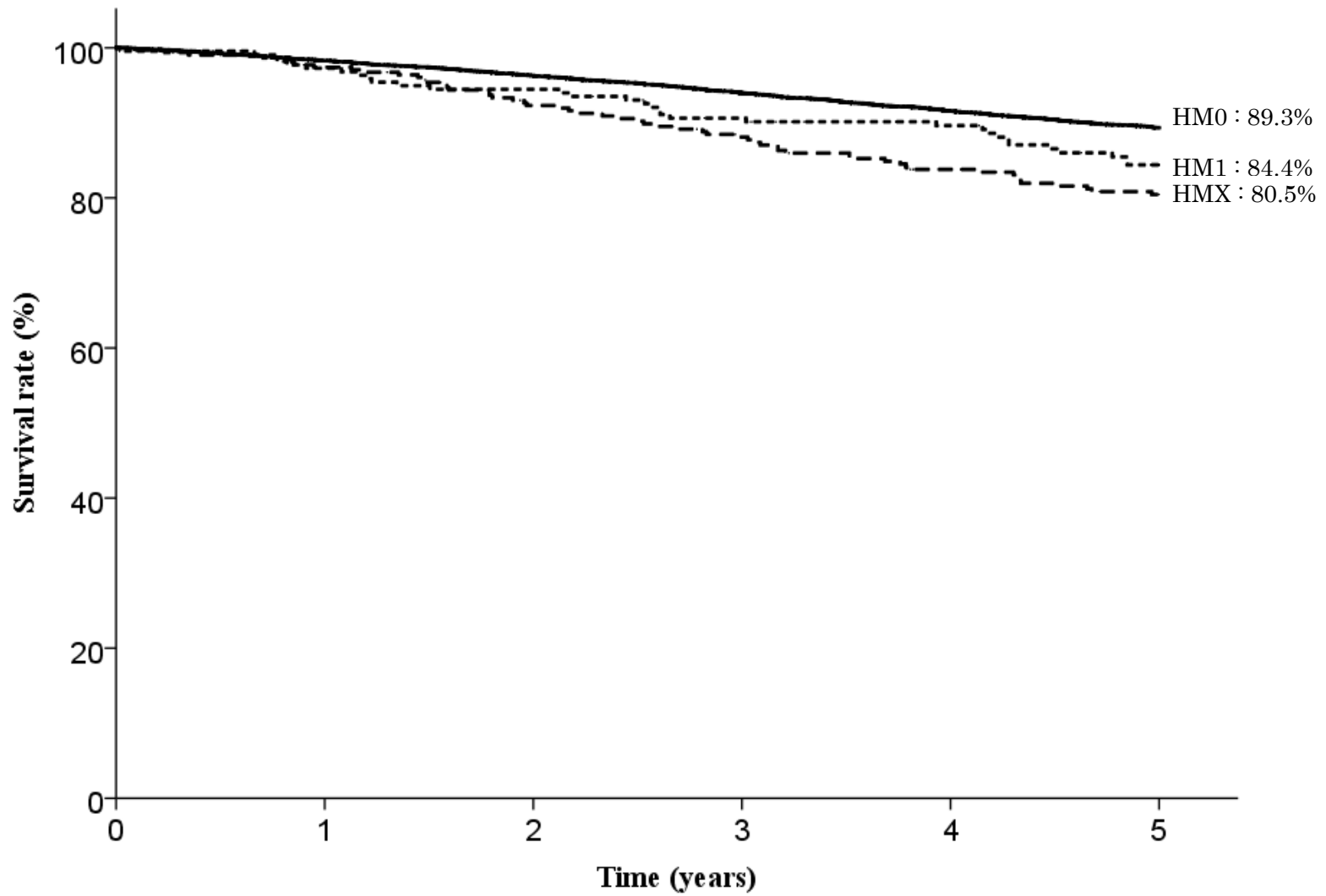


Fig. 18. Five year survival rates stratified by horizontal margin

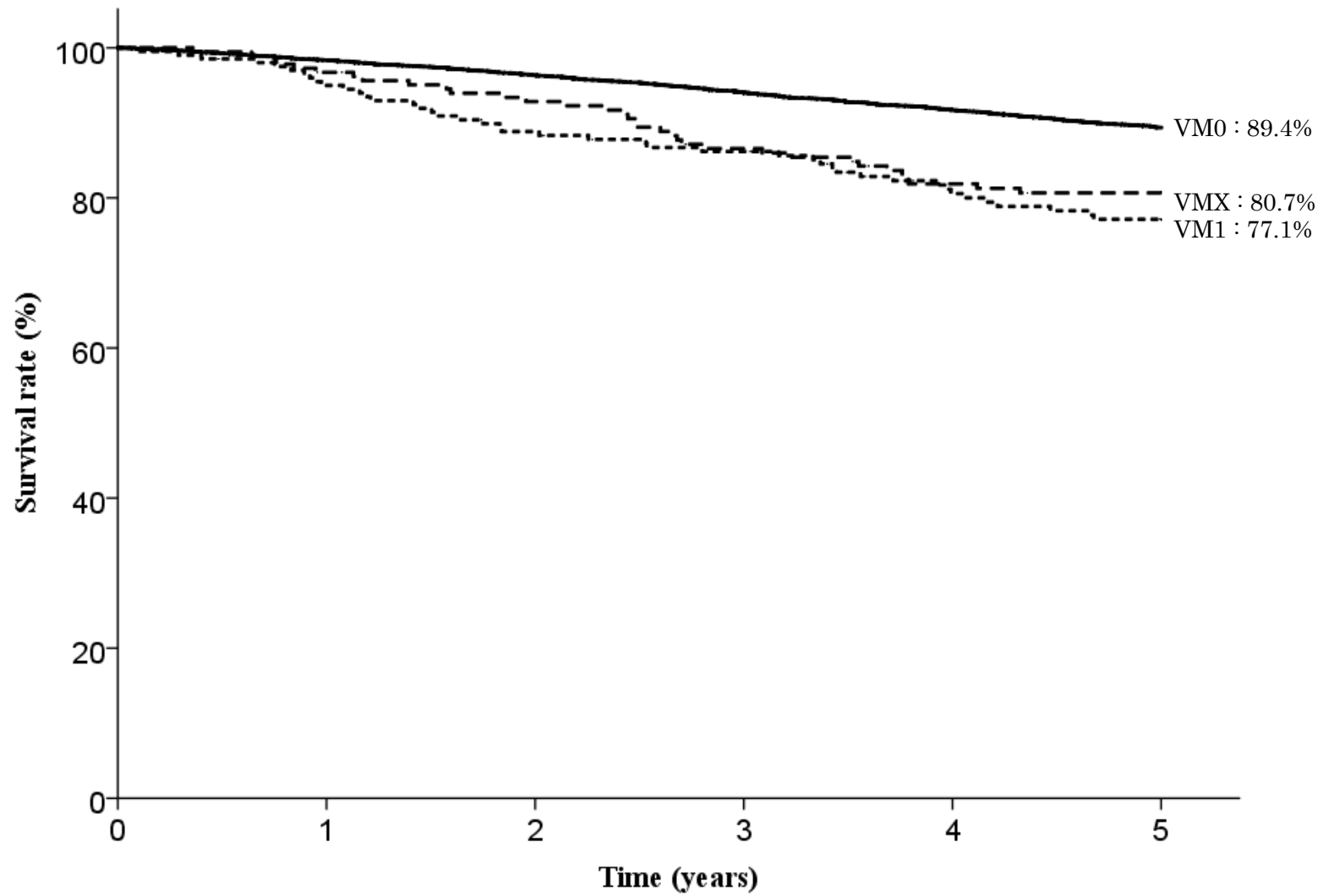


Fig. 19. Five year survival rates stratified by vertical margin



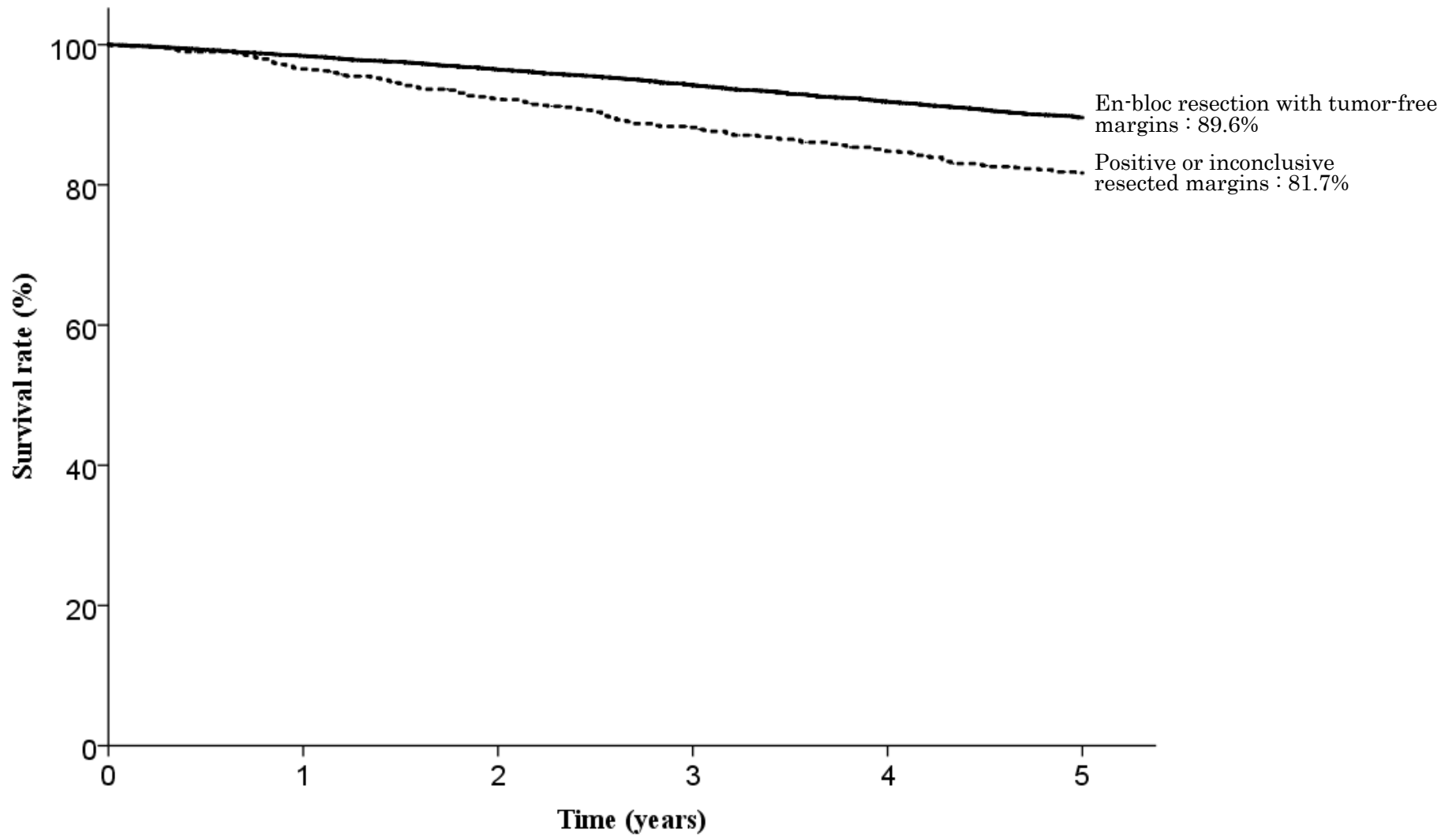


Fig. 20. Five year survival rates stratified by en-bloc resection with tumor-free margins

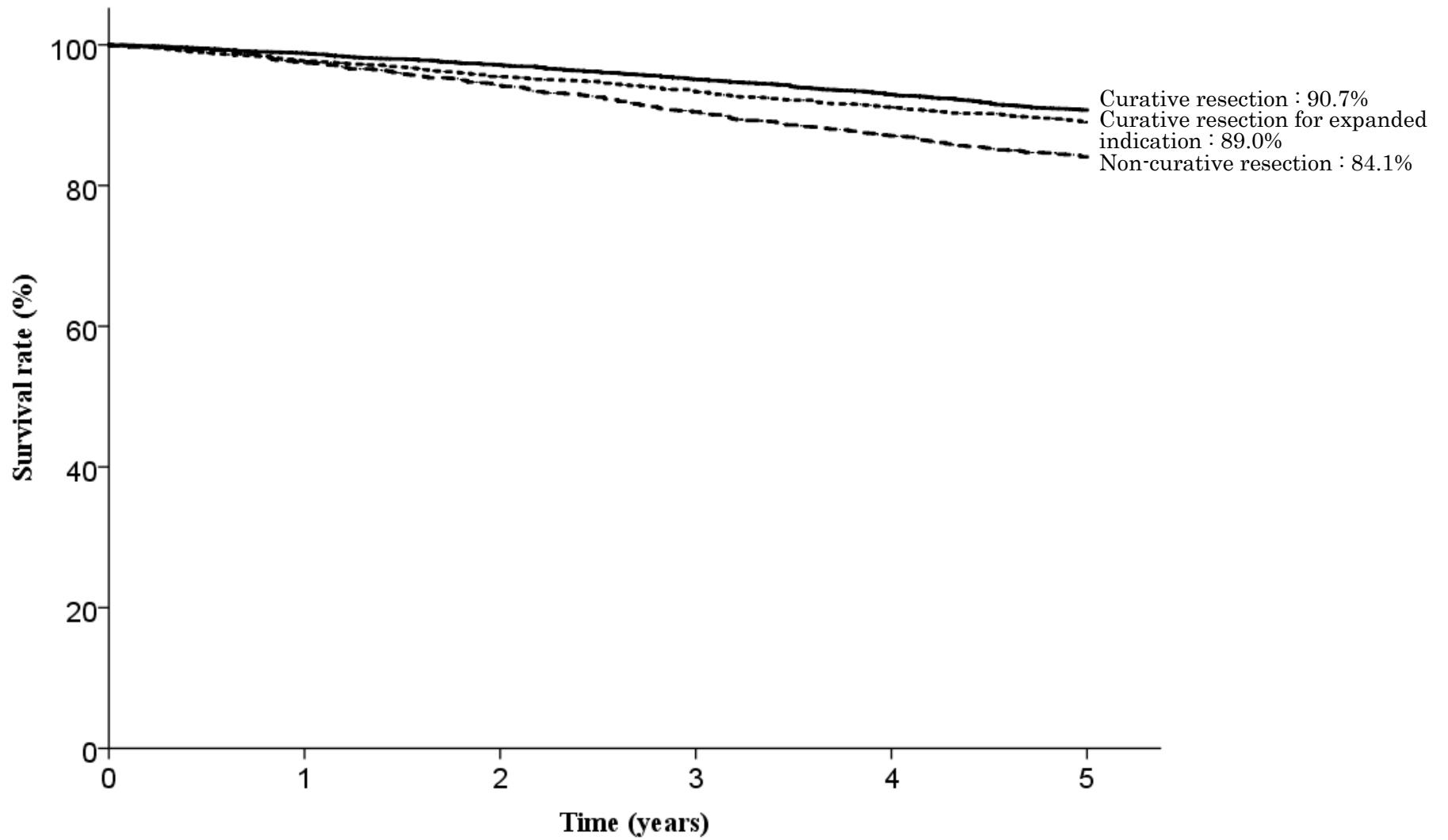


Fig. 21. Five year survival rates stratified by curability

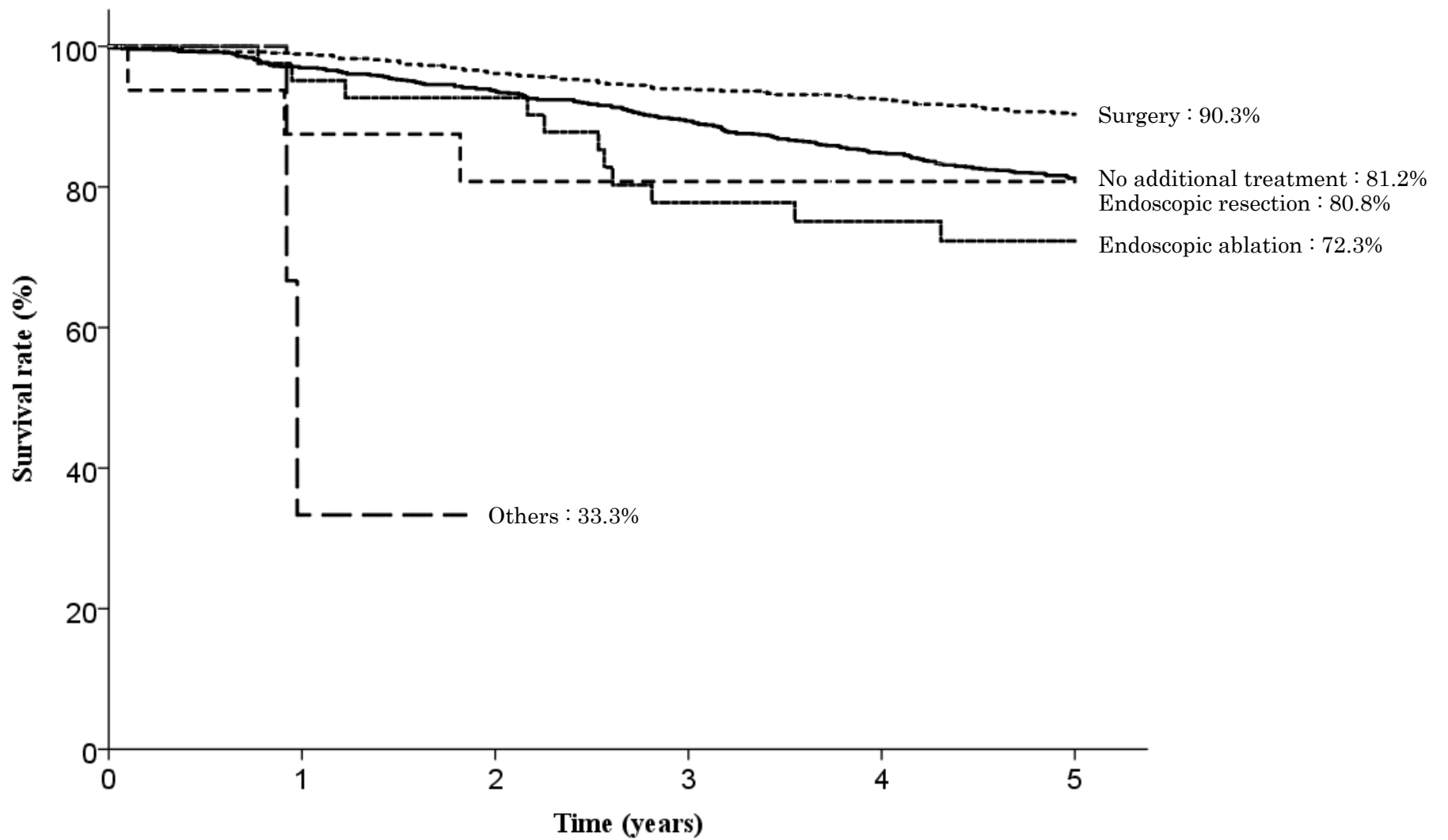


Fig. 22. Five year survival rates stratified by subsequent treatment for non-curative resection

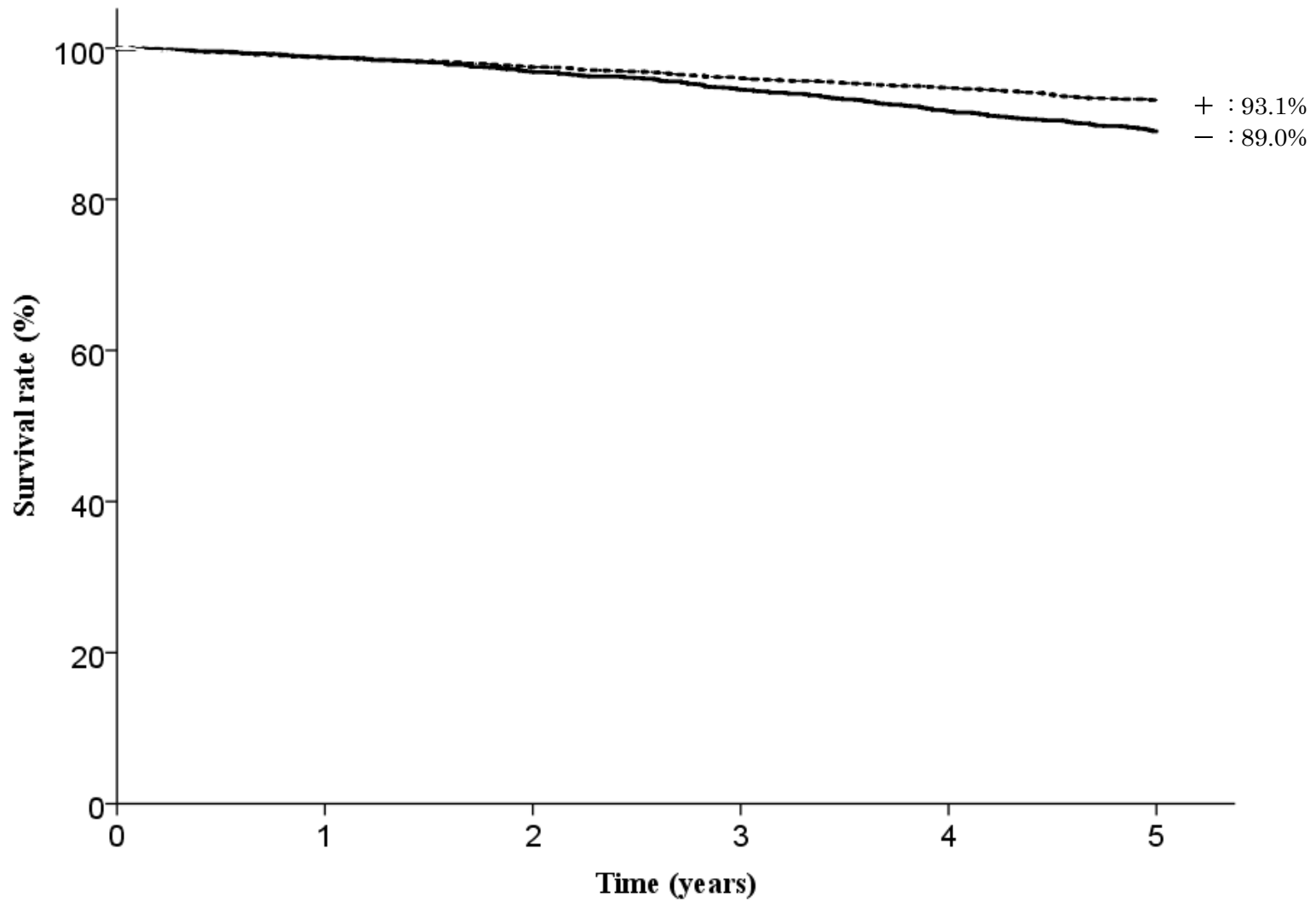


Fig. 23. Five year survival rates stratified by *H. pylori* infection

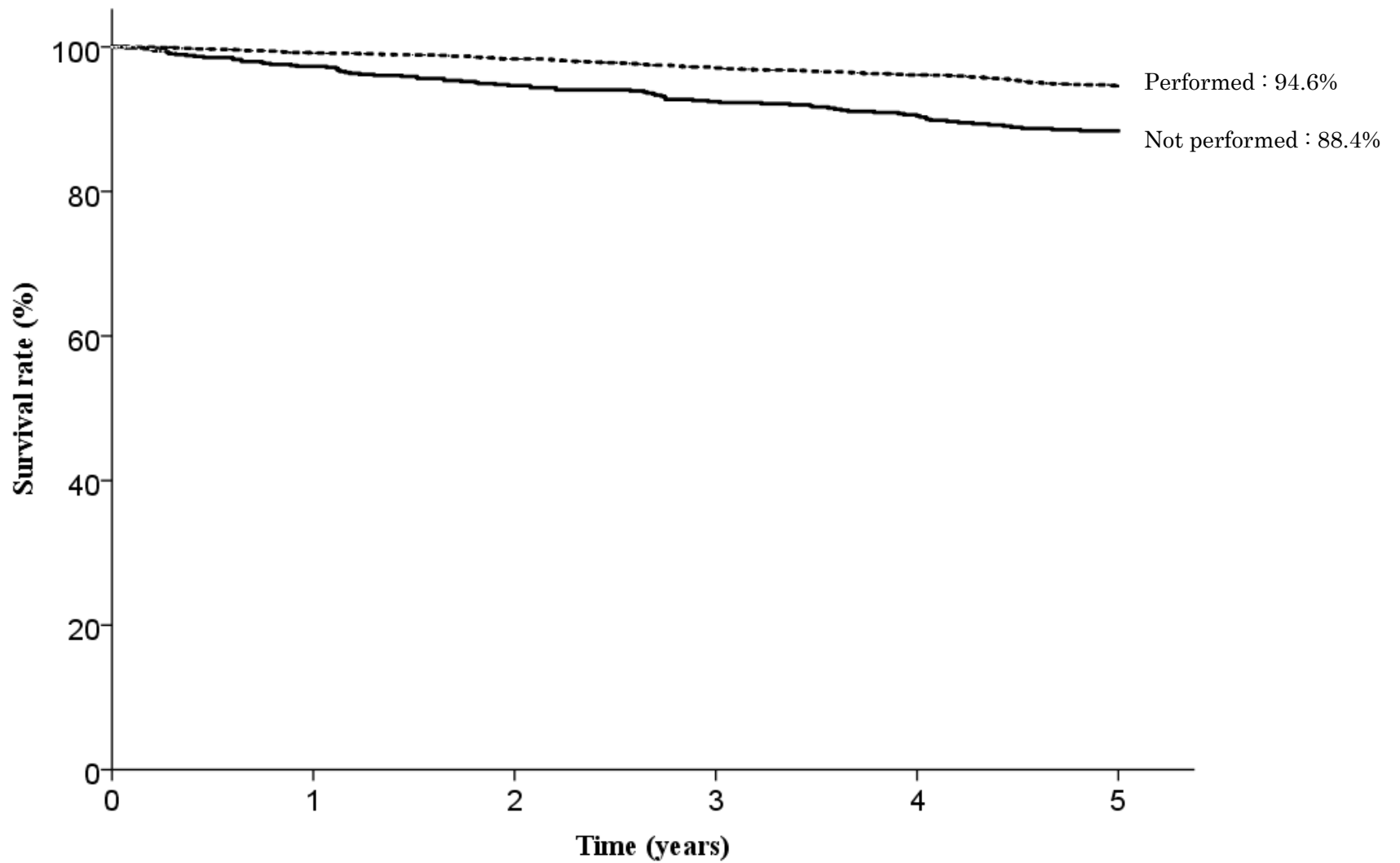


Fig. 24. Five year survival rates stratified by Eradication therapy  
*in H. pylori* - positive cases

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	9,998	8	1,914	98.2	96.1	93.7	91.3	88.9	0.3	7,108	19	6	2	4	7	0	264	420	254

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	20	0	1	100.0	95.0	95.0	95.0	95.0	4.9	18	0	0	0	0	0	0	0	0	1
40-59	835	0	126	99.6	99.4	97.6	97.3	96.9	0.6	686	0	0	0	0	1	0	8	11	3
60-79	7,121	3	1,204	98.7	97.0	95.0	93.0	91.1	0.4	5,350	11	5	2	1	2	0	184	235	127
80-	2,019	5	583	95.8	91.4	87.0	81.8	76.7	1.1	1,051	8	1	0	3	4	0	72	174	123

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	7,466	7	1,335	98.0	95.6	93.1	90.5	87.9	0.4	5,328	15	5	2	1	6	0	226	344	204
Female	2,530	1	579	98.9	97.5	95.4	93.6	92.0	0.6	1,778	4	1	0	3	1	0	38	76	50

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 (-)	9,610	8	1,866	98.3	96.2	93.8	91.4	89.1	0.3	6,823	18	5	2	4	6	0	252	392	242
Prior endoscopic treatment (+)	366	0	42	98.0	95.7	92.2	87.2	84.7	2.0	272	1	1	0	0	1	0	10	28	11

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	9,626	7	1,853	98.2	96.1	93.8	91.5	89.1	0.3	6,850	17	5	2	4	6	0	254	399	236
Remnant stomach	310	1	56	98.3	95.9	93.7	88.2	85.9	2.1	215	2	1	0	0	1	0	7	13	15
Gastric tube	61	0	4	96.6	94.9	86.3	77.6	75.9	5.6	43	0	0	0	0	0	0	3	8	3

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	1,693	3	327	98.1	95.8	92.9	90.4	87.7	0.9	1,183	4	3	1	1	2	0	50	77	45
Middle third	3,729	3	670	98.2	96.3	94.1	91.8	90.0	0.5	2,726	5	1	1	2	3	0	93	139	89
Lower third	4,550	2	910	98.4	96.1	93.7	91.2	88.6	0.5	3,185	10	2	0	1	2	0	121	202	117

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	4,145	5	833	98.1	96.4	94.1	91.5	89.4	0.5	2,928	9	2	2	1	3	0	102	161	104
Gre	1,944	0	376	98.6	95.9	93.3	91.5	89.5	0.7	1,388	3	2	0	2	1	0	44	86	42
Ant	1,784	1	324	98.1	95.8	93.6	91.6	88.7	0.8	1,281	2	0	0	1	0	0	45	80	51
Post	2,065	2	373	98.5	96.4	93.7	90.6	88.0	0.8	1,473	5	2	0	0	3	0	70	88	51

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	5,134	3	904	98.7	96.8	94.6	92.4	90.4	0.4	3,791	9	3	0	3	3	0	135	182	104
Elevated type	3,872	4	813	97.8	95.2	92.6	89.9	87.2	0.6	2,628	6	3	2	0	3	0	102	197	118
Mixed type	935	1	181	97.5	95.6	93.2	90.3	87.9	1.1	654	3	0	0	1	1	0	25	40	30
Others	6	0	2	80.0	80.0	80.0	80.0	80.0	17.9	3	0	0	0	0	0	0	0	1	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	9,792	7	1,873	98.3	96.2	93.8	91.5	89.1	0.3	6,978	18	4	2	4	7	0	259	406	241
EMR	193	0	40	97.2	92.0	88.5	82.9	81.6	3.0	122	1	2	0	0	0	0	5	11	12
Others	11	1	1	81.8	72.7	72.7	62.3	62.3	15.0	6	0	0	0	0	0	0	0	3	1

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	9,831	8	1,895	98.3	96.2	93.9	91.5	89.2	0.3	7,001	18	5	2	4	7	0	255	400	244
Piecemeal resection	144	0	15	95.0	89.1	83.2	78.0	72.5	3.9	92	1	1	0	0	0	0	7	19	9

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	88	0	18	98.8	92.5	91.2	88.5	88.5	3.6	61	0	0	1	0	0	0	4	2	2
Absence	9,899	8	1,893	98.2	96.1	93.7	91.3	88.9	0.3	7,039	19	6	1	4	7	0	260	418	252

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	28	0	3	92.9	92.9	89.0	85.1	81.3	7.6	20	0	1	0	1	0	0	0	1	2
Absence	9,959	8	1,904	98.3	96.1	93.7	91.3	89.0	0.3	7,086	19	4	2	3	7	0	263	419	252

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	208	0	56	96.3	93.5	90.1	87.1	85.1	2.7	126	2	0	0	0	0	0	1	14	9
tub1	7,937	7	1,556	98.4	96.5	94.2	91.8	89.6	0.4	5,655	11	1	1	0	2	0	200	320	191
tub2	1,365	1	234	98.1	95.0	92.5	89.3	86.2	1.0	964	2	2	1	2	4	0	43	70	43
por	202	0	30	95.9	91.6	88.4	87.2	83.2	2.8	141	0	1	0	1	1	0	13	10	5
sig	210	0	18	99.0	95.5	93.4	92.9	91.9	1.9	176	1	1	0	1	0	0	4	4	5
muc	3	0	0	100.0	66.7	33.3	33.3	33.3	27.2	1	1	0	0	0	0	0	0	1	0
Others	41	0	8	100.0	100.0	97.1	94.2	91.3	4.8	30	1	0	0	0	0	0	2	0	0
Inconclusive	9	0	3	100.0	100.0	100.0	83.3	66.7	19.2	4	0	1	0	0	0	0	1	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	8,437	4	1,660	98.4	96.5	94.4	92.2	90.0	0.3	6,036	9	3	0	0	0	0	209	327	193
SM1	793	3	124	97.6	95.8	92.6	89.7	87.0	1.3	575	4	1	0	0	0	0	26	36	27
SM2 or deeper than SM2	717	1	119	97.1	91.8	87.2	82.9	79.5	1.6	466	5	1	2	4	7	0	26	56	31
Others	3	0	0	100.0	100.0	100.0	100.0	66.7	27.2	2	0	0	0	0	0	0	1	0	0
Inconclusive	22	0	6	100.0	100.0	94.4	81.9	81.9	9.5	13	0	1	0	0	0	0	1	0	1



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(-)	9,387	8	1,815	98.3	96.4	94.1	91.7	89.4	0.3	6,696	14	3	0	3	1	0	243	384	228
ly(+)	525	0	85	96.5	91.6	87.7	84.0	81.5	1.8	351	4	2	2	1	6	0	17	34	23
Inconclusive	34	0	5	100.0	100.0	97.0	90.3	83.5	6.8	24	0	1	0	0	0	0	2	1	1

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(-)	9,635	8	1,853	98.3	96.3	94.0	91.6	89.3	0.3	6,876	14	4	2	3	2	0	250	396	235
v(+)	277	0	48	96.7	89.4	85.8	81.2	77.7	2.6	173	4	1	0	1	5	0	9	22	14
Inconclusive	32	0	3	100.0	100.0	93.3	86.4	79.5	7.5	23	0	1	0	0	0	0	2	1	2

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(-)	8,498	8	1,649	98.3	96.1	93.8	91.5	89.2	0.4	6,039	13	4	1	3	3	0	222	354	210
UL(+)	906	0	146	98.0	96.2	93.7	90.5	87.8	1.2	661	4	2	1	0	3	0	20	44	25
Inconclusive	72	0	10	97.1	97.1	92.8	89.6	88.1	4.0	54	0	0	0	0	1	0	2	4	1

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	9,454	7	1,823	98.3	96.3	94.0	91.6	89.3	0.3	6,743	16	4	2	4	6	0	244	377	235
HM1	228	1	43	97.3	94.5	90.6	89.6	84.4	2.5	153	2	0	0	0	1	0	7	18	4
HMX	316	0	48	97.4	92.3	88.1	83.8	80.5	2.4	212	1	2	0	0	0	0	13	25	15

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	9,603	8	1,860	98.3	96.3	94.0	91.7	89.4	0.3	6,844	14	3	1	1	2	0	253	390	235
VM1	207	0	30	95.0	88.8	86.2	80.6	77.1	3.1	134	4	1	1	1	4	0	6	19	7
VMX	188	0	24	96.7	92.8	86.6	81.9	80.7	3.0	130	1	2	0	2	1	0	5	11	12

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	9,193	7	1,783	98.4	96.5	94.2	91.8	89.6	0.3	6,568	13	3	1	1	1	0	237	360	226
Positive or inconclusive resected margins	805	1	131	96.5	92.3	88.2	84.8	81.7	1.4	540	6	3	1	3	6	0	27	60	28

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	5,378	3	1,086	98.8	97.1	95.1	92.9	90.7	0.4	3,857	6	1	0	0	0	0	125	190	113
Curative resection for expanded indication	2,658	1	488	97.7	95.5	93.4	91.1	89.0	0.6	1,909	3	1	0	0	0	0	74	107	76
Non-curative resection	1,962	4	340	97.4	94.3	90.5	87.1	84.1	0.9	1,342	10	4	2	4	7	0	65	123	65

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	1,235	4	238	96.9	93.7	89.4	84.8	81.2	1.2	793	7	2	0	3	3	0	51	90	48
Surgery	643	0	78	98.9	96.1	94.0	92.4	90.3	1.2	507	2	1	2	1	3	0	10	28	11
Endoscopic resection	16	0	4	87.5	80.8	80.8	80.8	80.8	10.0	9	0	0	0	0	0	0	1	2	0
Endoscopic ablation	43	0	7	95.1	92.7	77.8	75.1	72.3	7.1	25	1	1	0	0	0	0	3	3	3
Others	3	0	1	33.3	-	-	-	-	27.2	0	0	0	0	0	1	0	0	0	1

Table23. *H. pylori* infection

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
(-)	2,210	3	463	98.8	96.9	94.5	91.6	89.0	0.7	1,537	4	2	0	1	3	0	57	95	48
(+)	4,258	1	722	98.8	97.5	96.0	94.7	93.1	0.4	3,270	2	2	2	1	0	0	82	110	67

Table24. Eradication therapy in *H. pylori*-positive cases

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
Not performed	787	1	173	97.3	94.6	92.4	90.4	88.4	1.2	532	1	0	2	0	0	0	32	37	10
Performed	3,116	0	475	99.1	98.3	97.1	96.1	94.6	0.4	2,488	1	1	0	1	0	0	42	59	49