

Multi-Institutional Registry of Large Bowel Cancer in Japan

Vol. 33

Cases treated in 2007

Japan Society for Cancer of the Colon and Rectum

全国登録委員会

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まえがき

全国大腸癌登録調査報告書第 33 号 (Multi-Institutional Registry of Large Bowel Cancer in Japan, Vol. 33) をお届けします。本号は 2007 年に大腸癌研究会の会員施設において初回治療された大腸悪性腫瘍 8430 例の調査報告書です。本号からはこれまでの紙媒体での発刊を中止し、オンラインのみでの公開といたしました。また、これまでの部位別の検討を一部省略する一方で、数値のみでなく、生存曲線も掲載しています。これに伴い、生存分析は従来は生命表法で集計していましたが、今回より Kaplan-Meier 法で集計しました。臨床病理学的事項は、大腸癌取扱い規約第 6 版に従って記載されており、直腸 S 状部については、直腸に含めて解析されています。

全国がん登録や院内がん登録、National Clinical Database (NCD) など、様々な registry が本邦で行われていますが、大腸癌研究会が行ってきました大腸癌全国登録、いわゆる臓器がん登録の重要性は今後益々大きくなっていくものと考えます。本邦の質の高い大腸癌の治療は、大腸癌取扱い規約や大腸癌治療ガイドラインに支えられている面があります。これら大腸癌取扱い規約や大腸癌治療ガイドラインの作成や改訂において、本全国登録で得られた高質なデータの果たす役割は重要です。

会員施設に勤務されている先生方におかれましては、本登録の意義をご理解いただきまして、引き続き登録へのご協力をお願い申し上げます。また、登録いただいた会員施設の先生方には、全国登録データ利用の門戸が広く開かれております。是非積極的にご利用いただきますようお願い申し上げます。

2018 年 6 月

大腸癌研究会

会長 杉原 健一

全国大腸癌登録委員会

委員長 小林 宏寿

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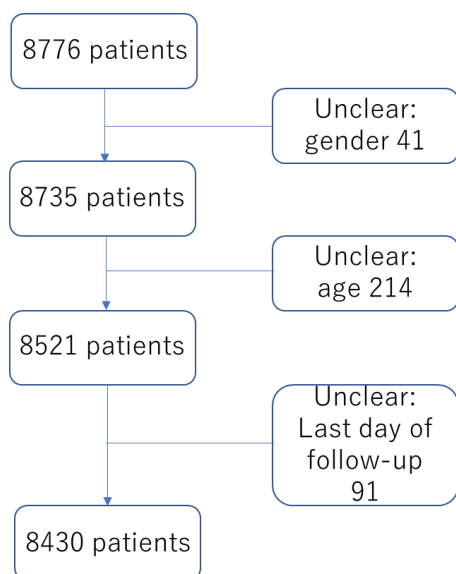
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Data-flow chart (Algorithm of data cleaning)

Analyses were basically performed including the patients who had some missing data, because the percentage of missing data would be helpful to interpret the data more precisely.

Table 1-Treatment

Treatment	Number	Percentage
Endoscopic resection	426	5.1
Endoscopic resection followed by surgery	320	3.8
Surgery	7644	90.7
Non-surgery	40	0.5
Total	8430	100

Table 2-1 Endoscopic excision-Gender

Gender	Number	Percentage
Male	274	64.3
Female	152	35.7
Total	426	100

Table 2-2 Endoscopic excision-Age

Age (median)	69 (27-94)
Age (mean)	66.6 ± 12

Table 2-3 Endoscopic excision-Age classification

Age classification	Number	Percentage
20-29	3	0.7
30-39	9	2.1
40-49	25	5.9
50-59	91	21.4
60-69	100	23.5
70-79	142	33.3
80-89	52	12.2
90=<	4	0.9
Total	426	100

Table 2-4 Endoscopic excision-Tumor locatic

Tumor location	Number	Percentage
Cecum	19	4.5
Ascending	55	12.9
Transverse	36	8.5
Descending	18	4.2
Sigmoid	145	34.0
Rectosigmoid	58	13.6
Upper rectum	39	9.2
Lower rectum	53	12.4
Unknown	3	0.7
Total	426	100

Table 2-5 Endoscopic excision-Procedure

Procedure	Number	Percentage
Polypectomy	51	12.0
EMR	330	77.5
ESD	45	10.6
Total	426	100

Table 2-6 Endoscopic excision-En bloc or piecemeal

Resection type	Number	Percentage
En bloc	354	83.1
Piecemeal	64	15.0
Unknown	8	1.9
Total	426	100

Table 2-7 Endoscopic excision-Macroscopic type

Macroscopic type	Number	Percentage
Is	50	11.7
Isp	150	35.2
Ip	105	24.6
Ila	31	7.3
Ila+Ilc	11	2.6
Ilc+Ila	1	0.2
Ilc	5	1.2
Unknown	16	3.8
Total	426	100

Table 2-8 Endoscopic excision-Tumor size

Median	13 (2-65) mm
Mean	15.7 ± 10 mm

Table 2-9 Endoscopic excision-Tumor size 2

Tumor size	Number	Percentage
≤5 mm	19	4.5
6-10 mm	144	33.8
11-15 mm	91	21.4
16-20 mm	61	14.3
21-30 mm	43	10.1
31-40 mm	16	3.8
>40 mm	12	2.8
Unknown	40	9.4
Total	426	100

Table 2-10 Endoscopic excision-Histologic type

Histologic type	Number	Percentage
Well differentiated	382	89.7
Moderately differentiated	20	4.7
Poorly differentiated	1	0.2
Neuroendocrine tumor	11	2.6
Others	8	1.9
Unknown	4	0.9
Total	426	100

Table 2-11 Endoscopic excision-Depth of tumor invasion

Depth of tumor invasion	Number	Percentage
m	338	79.3
sm	75	17.6
Unknown	13	3.1
Total	426	100

Table 2-12 Endoscopic excision-Distance of submucosal invasion

Distance of submucosal invasion	Number	Percentage
<1000 μ m	23	30.7
\geq 1000 μ m	21	28.0
Unknown	31	41.3
Total	75	100

Table 2-13 Endoscopic excision-Lymphatic invasion

Lymphatic invasion	Number	Percentage
ly0	377	88.5
ly1	8	1.9
ly2	1	0.2
Unknown	40	9.4
Total	426	100

Table 2-14 Endoscopic excision-Venous invasion

Venous invasion	Number	Percentage
v0	380	89.2
v1	7	1.6
Unknown	39	9.2
Total	426	100

Table 2-15 Endoscopic excision-Horizontal margin

Horizontal margin	Number	Percentage
HM0	367	86.2
HM1	16	3.8
Unknown	43	10.1
Total	426	100

Table 2-16 Endoscopic excision-Vertical margin

Vertical margin	Number	Percentage
VM0	372	87.3
VM1	11	2.6
Unknown	43	10.1
Total	426	100

Table 2-17 Endoscopic excision-Curability

Curability	Number	Percentage
cur EA	382	89.7
cur EC	16	3.8
Unknown	28	6.6
Total	426	100

Table 3-1 Surgery after endoscopic excision-Gender

Gender	Number	Percentage
Male	201	62.8
Female	119	37.2
Total	320	100

Table 3-2 Surgery after endoscopic excision-Age

Age (median)	64 (29-88)
Age (mean)	63.8 ± 10.7

Table 3-3 Surgery after endoscopic excision-Age classification

Age classification	Number	Percentage
20-29	1	0.3
30-39	8	2.5
40-49	19	5.9
50-59	82	25.6
60-69	98	30.6
70-79	96	30.0
80-89	16	5.0
90=<	0	0
Total	320	100

Table 3-4 Surgery after endoscopic excision-Tumor location

Tumor location	Number	Percentage
Cecum	7	2.2
Ascending	26	8.1
Transverse	29	9.1
Descending	15	4.7
Sigmoid	127	39.7
Rectosigmoid	43	13.4
Upper rectum	38	11.9
Lower rectum	33	10.3
Proctos	1	0.3
Unknown	1	0.3
Total	320	100

Table 3-5 Surgery after endoscopic excision-Endoscopic procedure

Procedure	Number	Percentage
Polypectomy	21	7.2
EMR	242	83.2
ESD	23	7.9
Others	2	0.7
Unknown	3	1.0
Total	320	100

Table 3-6 Surgery after endoscopic excision-En bloc or piecemeal

Resection	Number	Percentage
En bloc	202	63.1
Piecemeal	52	16.3
Unknown	66	20.6
Total	320	100

Table 3-7 Surgery after endoscopic excision-Macroscopic type

Macroscopic type	Number	Percentage
Is	31	9.7
Isp	114	35.6
Ip	49	15.3
Ila	25	7.8
Ila+Ilc	11	3.4
Ilc+Ila	1	0.3
Ilc	6	1.9
Unknown	83	25.9
Total	320	100

Table 3-8 Surgery after endoscopic excision-Tumor size

Median	15 (2.5-100) mm
Mean	17.6 ± 11 mm

Table 3-9 Surgery after endoscopic excision-Tumor size 2

Tumor size	Number	Percentage
<=5 mm	4	1.3
6-10 mm	52	16.3
11-15 mm	63	19.7
16-20 mm	50	15.6
21-30 mm	27	8.4
31-40 mm	10	3.1
>40 mm	8	2.5
Unknown	106	33.1
Total	320	100

Table 3-10 Surgery after endoscopic excision-Histologic type

Histologic type	Number	Percentage
Well differentiated	179	55.9
Moderately differentiated	81	25.3
Poorly differentiated	3	0.9
Mucinous	3	0.9
Signet ring cell	1	0.3
Neuroendocrine tumor	4	1.3
Others	1	0.3
Unknown	48	15.0
Total	320	100

Table 3-11 Surgery after endoscopic excision-Depth of tumor invasion (endoscopic)

Depth of tumor invasion	Number	Percentage
m	19	5.9
sm	239	74.7
mp	8	2.5
ss/a	5	1.6
Unknown	49	15.3
Total	320	100

Table 3-12 Surgery after endoscopic excision-Distance of submucosal invasion

Distance of submucosal invasion	Number	Percentage
<1000 μ m	22	6.9
\geq 1000 μ m	126	39.4
Unknown	172	53.8
Total	320	100

Table 3-13 Surgery after endoscopic excision-Lymphatic invasion

Lymphatic invasion	Number	Percentage
ly0	152	47.5
ly1	72	22.5
ly2	15	4.7
ly3	2	0.6
Unknown	79	24.7
Total	320	100

Table 3-14 Surgery after endoscopic excision-Venous invasion

Venous invasion	Number	Percentage
v0	188	58.8
v1	44	13.8
v2	12	3.8
v3	1	0.3
Unknown	75	23.4
Total	320	100

Table 3-15 Surgery after endoscopic excision-Horizontal margin

Horizontal margin	Number	Percentage
HM0	158	49.4
HM1	23	7.2
Unknown	139	43.4
Total	320	100

Table 3-16 Surgery after endoscopic excision-Vertical margin

Vertical margin	Number	Percentage
VM0	146	45.6
VM1	46	14.4
Unknown	128	40.0
Total	320	100

Table 3-17 Surgery after endoscopic excision-Endoscopic curability

Endoscopic curability	Number	Percentage
cur EA	140	43.8
cur EC	87	27.2
Unknown	93	29.1
Total	320	100

Table 3-18 Surgery after endoscopic excision-Operative approach

Operative approach	Number	Percentage
Open	110	34.4
Laparoscopic	200	62.5
Transanal	5	1.6
Unknown	5	1.6
Total	320	100

Table 3-19 Surgery after endoscopic excision-Type of anastomosis

Type of anastomosis	Number	Percentage
End-to-end	197	61.6
End-to-side	14	4.4
Side-to-end	4	1.3
Side-to-side	6	1.9
Functional end-to-end	49	15.3
Unknown	50	15.6
Total	320	100

Table 3-20 Surgery after endoscopic excision-Type of anastomosis 2

Type of anastomosis	Number	Percentage
Handsewn	69	21.6
Stapling	205	64.1
Unknown	46	14.4
Total	320	100

Table 3-21 Surgery after endoscopic excision-Lymph node dissection

Type of anastomosis	Number	Percentage
D0	10	3.1
D1	30	9.4
D2	215	67.2
D3	56	17.5
Unknown	9	2.8
Total	320	100

Table 3-22 Surgery after endoscopic excision-Histologic type after surgery

Histologic type	Number	Percentage
Well differentiated	144	45.0
Moderately differentiated	81	25.3
Poorly differentiated	0	0.3
Mucinous	2	0.6
Signet ring cell	0	0
Neuroendocrine tumor	2	0.6
Others	3	0.9
Unknown	87	27.2
Total	320	100

Table 3-23 Surgery after endoscopic excision-Depth of tumor invasion after surgery

Depth of tumor invasion	Number	Percentage
m	18	5.6
sm	242	75.6
mp	14	4.4
ss/a	20	6.3
se	6	1.9
Unknown	20	6.3
Total	320	100

Table 3-24 Surgery after endoscopic excision-Lymph node metastasis

Lymph node metastasis	Number	Percentage
n0	265	82.8
n1	39	12.2
n2	4	1.3
n3	6	1.9
Unknown	6	1.9
Total	320	100

Table 3-25 Surgery after endoscopic excision-Number of lymph node retrieved

Number of lymph node retrieved (median)	11 (0-50)
Number of lymph node retrieved (mean)	12.7 ± 8.7

Table 3-26 Surgery after endoscopic excision-Number of positive lymph node

Number of positive node (median)	0 (0-14)
Number of positive node (mean)	0.4 ± 0.09

Table 3-27 Surgery after endoscopic excision-Liver metastasis

Liver metastasis	Number	Percentage
H0	309	96.6
H1	5	1.6
H2	0	0
H3	1	0.3
Unknown	5	1.6
Total	320	100

Table 3-28 Surgery after endoscopic excision-Peritoneal metastasis

Peritoneal metastasis	Number	Percentage
P0	315	98.4
P1	0	0
P2	0	0
P3	0	0
Unknown	5	1.6
Total	320	100

Table 3-29 Surgery after endoscopic excision-Distant metastasis other than liver

Distant metastasis	Number	Percentage
M0	301	94.1
M1	3	0.9
Unknown	16	5.0
Total	320	100

Table 3-30 Surgery after endoscopic excision-Curability after surgery

Curability	Number	Percentage
cur A	301	94.1
cur B	3	0.9
cur C		
Unknown	16	5.0
Total	320	100

Table 3-31 Surgery after endoscopic excision-Recurrence after surgery

Recurrence	Number	Percentage
Absent	267	83.4
Present	18	5.6
Unknown	35	10.9
Total	320	100

Table 3-32 Surgery after endoscopic excision-Recurrence site after surgery

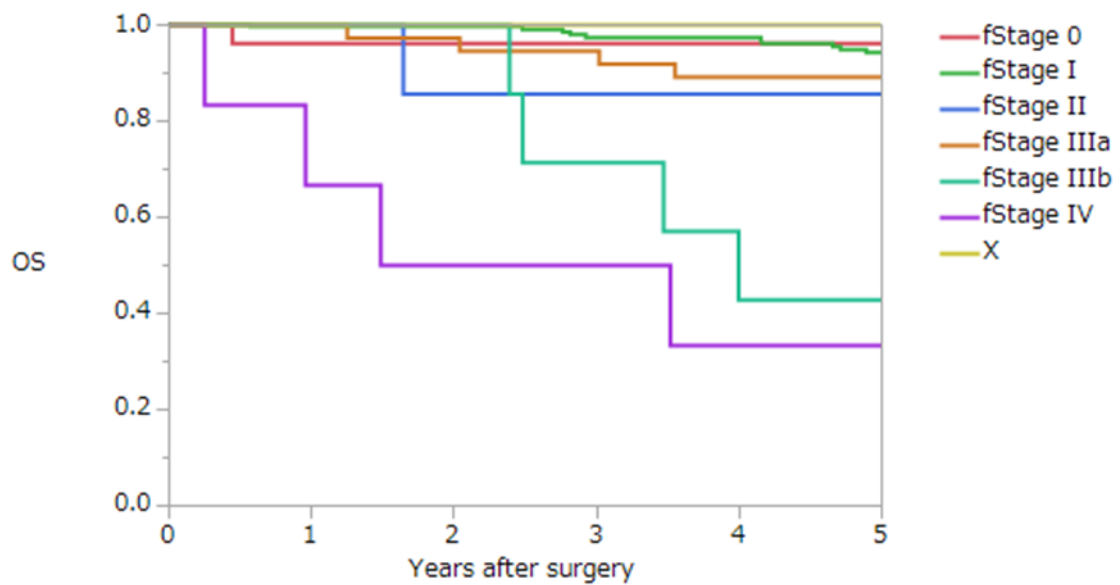
Fisrt recurrence site	Number
Regional lymph node	4
Local	18
Lymph node (not regional)	3
Liver	4
Lung	8
Bone	1
Others	2
(overlapping+)	

Table 3-33 Surgery after endoscopic excision-Treatment after recurrence

Treatment for recurrence	Number	Percentage
None	1	5.6
Curative surgery	4	22.2
Palliative surgery	1	5.6
Chemotherapy	10	55.6
Unknown	2	11.1
Total	18	100

Table3-34 Surgery after endoscopic excision-Overall survival rates after surgery (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
Stage 0	28	96.2	96.2	96.2	96.2	96.2
Stage I	226	99.5	99.5	97.3	97.3	94.1
Stage II	8	100	85.7	85.7	85.7	85.7
Stage IIIa	39	100	97.3	94.7	89.3	89.3
Stage IIIb	7	100	100	71.4	42.9	42.9
Stage IV	6	66.7	50.0	50.0	33.3	33.3
Unknown	6					
All	320	98.6	97.5	94.9	92.9	90.8



Overall survival of all patients with surgery after endoscopic excision

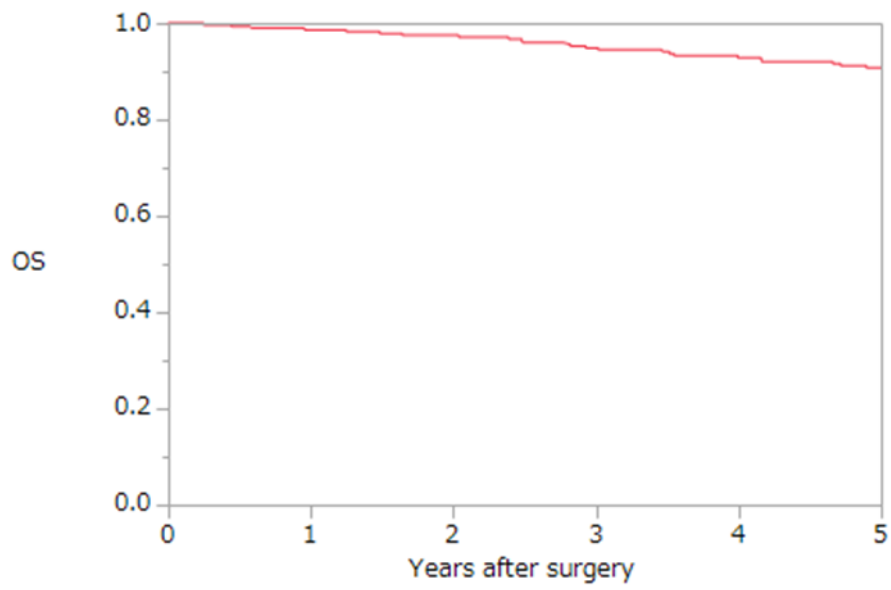


Table 4-1 Surgery-Gender

Gender	Number	Percentage
Male	4493	58.8
Female	3151	41.2
Total	7644	100

Table 4-2 Surgery-Age

Age (median)	68 (12-100)
Age (mean)	66.9 ± 11.3

Table 4-3 Surgery-Age classification

Age classification	Number	Percentage
<20	4	0.05
20-29	12	0.16
30-39	132	1.7
40-49	385	5.0
50-59	1382	18.1
60-69	2335	30.5
70-79	2410	31.5
80-89	911	11.9
90=<	73	0.96
Total	7644	100

Table 4-4 Surgery-Tumor location

Tumor location	Number	Percentage
Processus vermiformis	26	0.3
Cecum	552	7.2
Ascending	1071	14.0
Transverse	730	9.6
Descending	350	4.6
Sigmoid	1903	24.9
Rectosigmoid	892	11.7
Upper rectum	841	11.0
Lower rectum	1120	14.7
Proctos (anal canal)	70	0.9
Unknown	88	11.5
Total	7644	100

Table 4-5 Surgery-Preoperative serum CEA value

Preoperative serum CEA value	Number	Percentage
Normal	4204	55.0
<2 x ULN	1133	14.8
<4 x ULN	638	8.3
<8 x UNL	407	5.3
>=8 x UNL	658	8.6
Unknown	604	7.9
Total	7644	100

Table 4-6 Surgery-Multiple primary cancers

Multiple primary cancers	Number	Percentage
Absent	6493	84.9
Synchronous	320	4.2
Metachronous	692	9.1
Synchronous and metachronous	39	0.5
Unknown	100	1.3
Total	7644	100

Table 4-7 Surgery-Synchronous multiple colorectal cancers

Synchronous multiple CRC	Number	Percentage
Absent	6273	82.1
Early cancer	207	2.7
Advanced cancer	138	1.8
Both early and advanced cancer	152	2.0
Unknown	874	11.4
Total	7644	100

Table 4-8 Surgery-Metachronous multiple colorectal cancers

Metachronous multiple CRC	Number	Percentage
Absent	6523	85.3
Early cancer	107	1.4
Advanced cancer	86	1.1
Both early and advanced cancer	19	0.2
Unknown	909	11.9
Total	7644	100

Table 4-9 Operative procedure

Operative procedure	Number	Percentage
Polypectomy	8	0.1
Tumorectomy	65	0.9
Local excision	50	0.7
Appendectomy	2	0.0
Ileocecal resection	410	5.4
Partial colectomy	727	9.5
Right hemicolectomy	1294	16.9
Left hemicolectomy	269	3.5
Sigmoidectomy	1511	19.8
Subtotal colectomy	23	0.3
Total colectomy	7	0.1
High anterior resection	615	8.0
Low anterior resection	1659	21.7
Hartmann's operation	258	3.4
Abdominoperineal resection	424	5.5
Others	121	1.6
Unknown	191	2.5
Total	7644	100

Table 4-10 Surgery-Operative approach

Operative approach	Number	Percentage
Open	5350	70.0
Laparoscopic	1687	22.1
Transanal	446	5.8
Others	13	0.2
Unknown	148	1.9
Total	7644	100

Table 4-11 Surgery-Type of anastomosis

Type of anastomosis	Number	Percentage
End-to-end	3725	48.7
End-to-side	450	5.9
Side-to-end	234	3.1
Side-to-side	150	2.0
Functional end-to-end	1348	17.6
Unknown	1737	22.7
Total	7644	100

Table 4-12 Surgery-Type of anastomosis 2

Type of anastomosis	Number	Percentage
Handsewn	1364	17.8
Stapling	4665	61.0
Unknown	1615	21.1
Total	7644	100

Table 4-13 Surgery- Lymph node dissection

Lymph node dissection	Number	Percentage
D0	230	3.0
D1	496	6.5
D2	2832	37.0
D3	3600	47.1
Unknown	486	6.4
Total	7644	100

Table 4-14 Surgery-Tumor size

Tumor size	Number	Percentage
<=20 mm	1039	13.6
21-40 mm	2494	32.6
41-60 mm	2097	27.4
61-80 mm	939	12.3
81-100 mm	311	4.1
>100 mm	117	1.5
Unknown	647	8.5
Total	7644	100

Table 4-15 Surgery-Histologic type

Histologic type	Number	Percentage
Well differentiated	3284	43.0
Moderately differentiated	3511	45.9
Poorly differentiated	272	3.6
Mucinous	223	3.0
Signet ring cell	14	0.2
Neuroendocrine tumor	27	0.4
Others	63	0.8
Unknown	247	3.2
Total	7644	100

Table 4-16 Surgery-Histologic type 2

Histologic type	Number	Percentage
adenocarcinoma	7307	95.6
other malignancies	90	1.2
Unknown	247	3.2
Total	7644	100

Table 4-17 Surgery-Depth of tumor invasion

Depth of tumor invasion	Number	Percentage
m	337	4.4
sm	860	11.3
mp	1027	13.4
ss	2853	37.3
se	1257	16.4
si	353	4.6
a	631	8.3
ai	75	1.0
Unknown	251	3.3
Total	7644	100

Table 4-18 Surgery-Number of invaded organs

Number of invaded organs	Number	Percentage
0	6965	91.1
1	343	4.5
2	53	0.7
3	7	0.1
Unknown	276	3.6
Total	7644	100

Table 4-19 Surgery-Lymphatic invasion

Lymphatic invasion	Number	Percentage
ly0	2940	38.4
ly1	2893	37.8
ly2	1128	14.8
ly3	358	4.7
Unknown	325	4.3
Total	7644	100

Table 4-20 Surgery-Venous invasion

Venous invasion	Number	Percentage
v0	2805	36.7
v1	2663	34.8
v2	1331	17.4
v3	516	6.8
Unknown	329	4.3
Total	7644	100

Table 4-21 Surgery-Interstitium

Interstitium	Number	Percentage
Medullary pattern	476	6.2
Intermediate pattern	3349	43.8
Scirrhous pattern	98	1.3
Unknown	3721	48.7
Total	7644	100

Table 4-22 Surgery-Infiltrative growth pattern

Infiltrative growth pattern	Number	Percentage
inf α	624	8.2
inf β	4356	57
inf γ	246	3.2
Unknown	2412	31.6
Total	7644	100

Table 4-23 Surgery-Proximal margin

Proximal margin	Number	Percentage
ow (-)	7006	91.7
ow (+)	7	0.1
Unknown	631	8.3
Total	7644	100

Table 4-24 Surgery-Distal margin

Distal margin	Number	Percentage
aw (-)	6996	91.5
aw (+)	16	0.2
Unknown	632	8.3
Total	7644	100

Table 4-25 Surgery-Circumferential resection margin

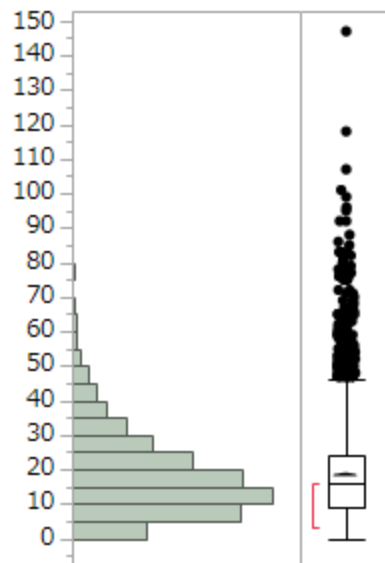
Circumferential resection margin	Number	Percentage
ew (-)	5885	77
ew (+)	191	2.5
Unknown	1568	20.5
Total	7644	100

Table 4-26 Surgery-lymph node metastasis

Lymph node metastasis	Number	Percentage
n0	4117	53.9
n1	1834	24.0
n2	734	9.6
n3	282	3.7
Unknown	677	8.9
Total	7644	100

Table 4-27 Surgery-number of lymph node retrieved (N = 6495)

Number of lymph node retrieved (median)	16 (0-147)
Number of lymph node retrieved (mean)	18.4 ± 12.9



* 外れ値検出のある箱ひげ図には次のものが表示されます。

- IQR = 第 3 四分位点- 第 1 四分位点
- 箱の端から $1.5 \times \text{IQR}$ までの範囲にある一番遠くの点までのひげ
- 外れ値の可能性のある点
- 半分のオブザベーションが含まれる最も短い範囲を示す赤い括弧

Table 4-28 Surgery-number of positive lymph node (N = 6646)

Number of positive node (median)	0 (0-52)
Number of positive node (mean)	1.5 ± 3.2

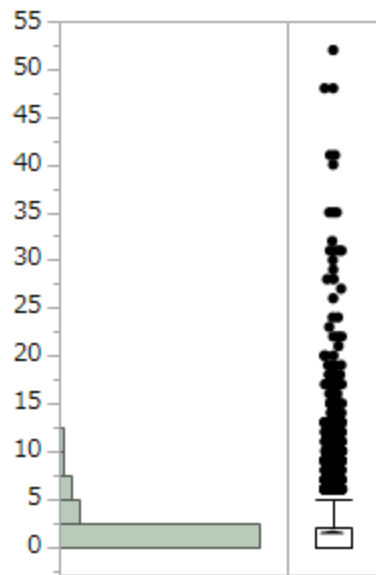


Table 4-29 Surgery-number of paracolic lymph node retrieved (N = 5962)

Number of lymph node retrieved (median)	9 (0-96)
Number of lymph node retrieved (mean)	10.5 ± 7.6

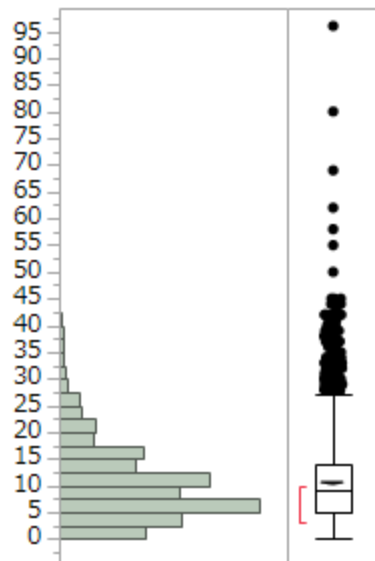


Table 4-30 Surgery-number of positive paracolic lymph node (N = 6530)

Number of positive node (median)	0 (0-48)
Number of positive node (mean)	1.51 ± 2.4

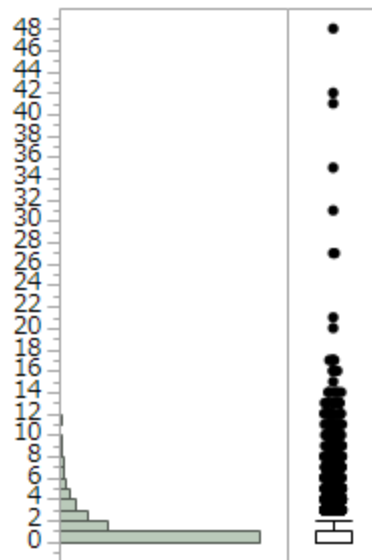


Table 4-31 Surgery-number of intermediate lymph node retrieved (N = 5582)

Number of lymph node retrieved (median)	4 (0-80)
Number of lymph node retrieved (mean)	5.2 ± 4.2

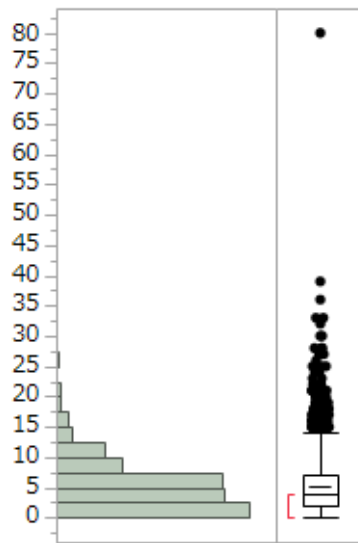


Table 4-32 Surgery-number of positive intermediate lymph node (N = 6130)

Number of positive node (median)	0 (0-15)
Number of positive node (mean)	0.3 ± 1.0

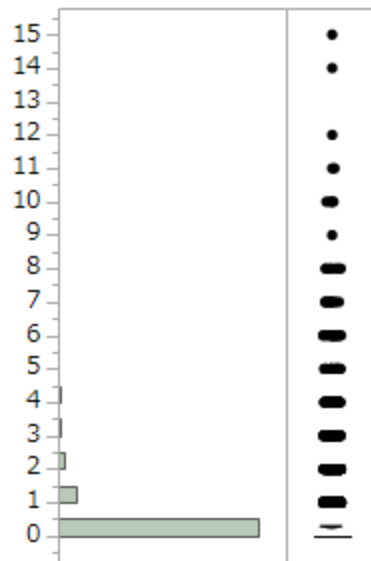


Table 4-33 Surgery-number of main lymph node retrieved (N = 3584)

Number of lymph node retrieved (median)	2 (0-32)
Number of lymph node retrieved (mean)	3.0 ± 3.1

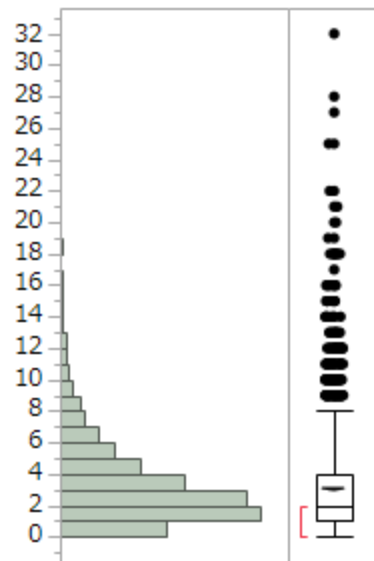


Table 4-34 Surgery-number of positive main lymph node (N = 4067)

Number of positive node (median)	0 (0-16)
Number of positive node (mean)	0.1 ± 0.6

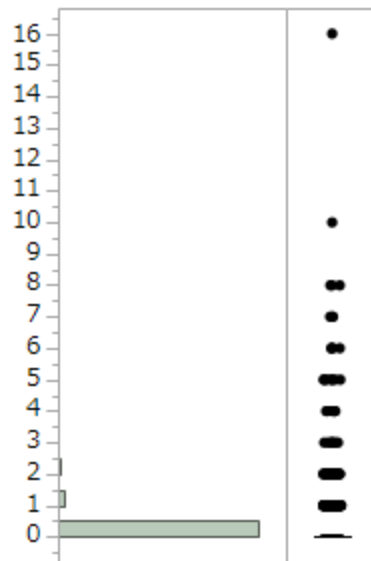


Table 4-35 Surgery-number of lateral pelvic lymph node retrieved (N = 396)

Number of lymph node retrieved (median)	12 (0-72)
Number of lymph node retrieved (mean)	13.4 ± 11.1

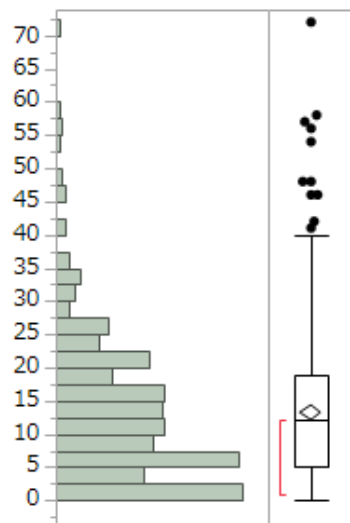


Table 4-36 Surgery-number of positive lateral pelvic lymph node (N = 841)

Number of positive node (median)	0 (0-37)
Number of positive node (mean)	0.4 ± 2.0

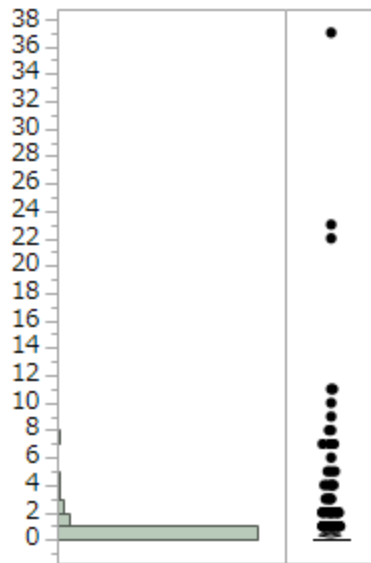


Table 4-37 Surgery-liver metastasis

Liver metastasis	Number	Percentage
H0	6553	85.7
H1	347	4.5
H2	187	2.4
H3	283	3.7
Unknown	274	3.6
Total	7644	100

Table 4-38 Surgery-Peritoneal metastasis

Peritoneal metastasis	Number	Percentage
P0	7042	92.1
P1	154	2.0
P2	58	0.8
P3	97	1.3
Unknown	293	3.8
Total	7644	100

Table 4-39 Surgery-Distant metastasis other than liver

Distant metastasis	Number	Percentage
M0	6837	89.4
M1	411	5.4
Unknown	396	5.2
Total	7644	100

Table 4-40 Surgery-Lung metastasis

Lung metastasis	Number	Percentage
LM0	6776	88.6
LM1	123	1.6
LM2	10	0.1
LM3	86	1.1
Unknown	649	8.5
Total	7644	100

Table 4-41 Surgery-Curability after surgery

Curability	Number	Percentage
cur A	6033	78.9
cur B	385	5.0
cur C	922	12.1
Unknown	304	4.0
Total	7644	100

Table 4-42 Surgery-Recurrence after surgery

recurrence	Number	Percentage
Absent	4937	73.4
Present	1255	18.7
Unknown	530	7.9
Total	6722	100

Table 4-43 Surgery-Recurrence rate according to stage

	Stage 0	Stage I	Stage II	Stage IIIa	Stage IIIb	Stage IV	Unknown
Absent	285 (91.1)	1327 (87.4)	1740 (78.6)	997 (68.8)	343 (51.7)	126 (35.5)	20 (47.6)
Present	4 (1.3)	89 (5.9)	324 (14.6)	365 (25.2)	271 (40.9)	182 (51.3)	8 (19.1)
Unknown	24 (7.7)	103 (6.8)	150 (6.8)	87 (6.0)	49 (7.4)	47 (13.2)	14 (33.3)
Total	313	1519	2214	1449	663	355	42

Table 4-44 Surgery-Recurrence site after surgery

First recurrence site	Number
Regional lymph node	97
Local	130
Anastomosis	66
Lymph node (not regional)	131
Liver	482
Lung	368
Peritoneum	141
Bone	33
Brain	18
Adrenal gland	10
Others	64
(overlapping+)	

Table 4-45 Surgery-Treatment after recurrence

Treatment for recurrence	Number	Percentage
None	109	8.7
Curative surgery	401	32
Palliative surgery	39	3.1
Chemotherapy	520	41.4
Radiation	45	3.6
Others	27	2.2
Unknown	114	9.1
Total	1255	100

Table 4-46 Surgery-Overall survival rates after surgery (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
Stage 0	271	98.4	95.9	95.1	93.7	91.2
Stage I	1411	98.9	97.4	95.4	93.8	92.1
Stage II	2082	97.5	94.4	91.1	97.9	85.0
Stage IIIa	1375	97.3	92.5	97.7	84.0	80.1
Stage IIIb	654	94.6	84.2	77.3	69.9	66.3
Stage IV	1056	80.0	58.4	44.3	33.4	27.6
Unknown	795					
All	7644	94.5	87.9	82.8	78.4	75.2

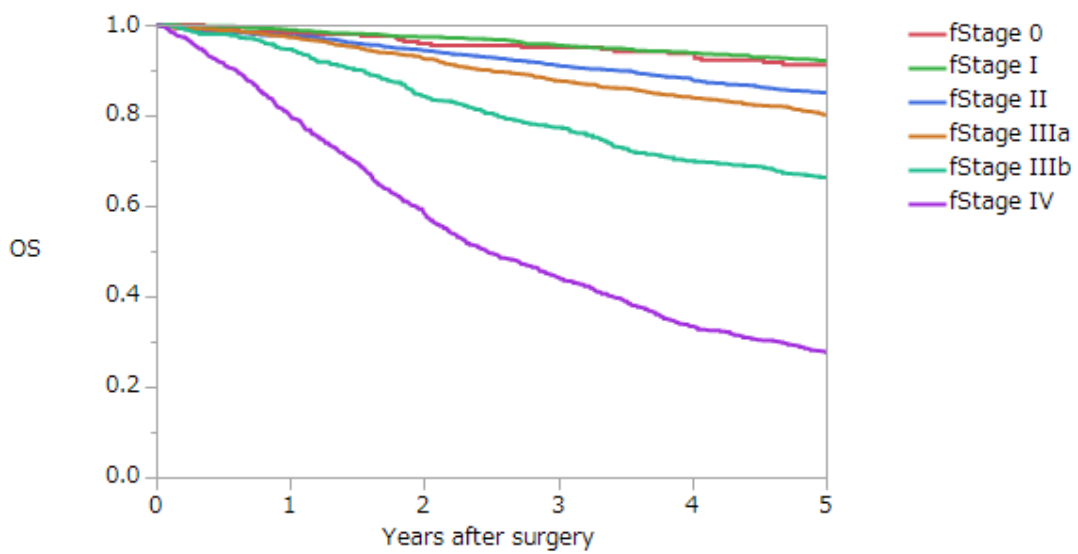


Table 4-47 Surgery-Overall survival rates after surgery (colon) (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
Stage 0	173	98.8	96.1	95.4	93.1	90.7
Stage I	795	98.3	96.7	94.2	92.6	90.7
Stage II	1334	97.2	94.1	91.2	88.3	85.0
Stage IIIa	846	96.8	91.8	87.2	83.0	79.5
Stage IIIb	336	94.4	83.0	76.6	69.9	67.3
Stage IV	652	78.4	57.3	43.5	33.7	29.1
All	4136	94.3	87.8	82.8	78.6	75.4

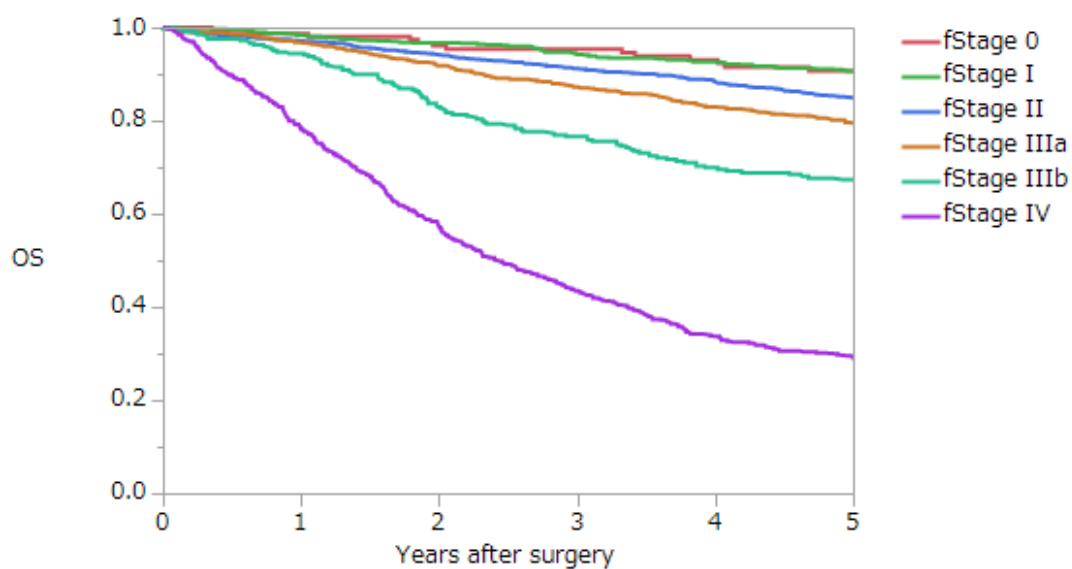


Table 4-48 Surgery-Overall survival rates after surgery (rectum) (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
Stage 0	95	97.8	95.5	94.3	94.3	91.7
Stage I	609	99.7	98.3	97.0	95.5	94.1
Stage II	733	98.2	94.9	91.1	87.6	85.7
Stage IIIa	523	98.1	93.7	88.4	85.2	80.9
Stage IIIb	312	94.7	85.2	77.7	69.4	65.0
Stage IV	385	83.1	61.1	46.6	34.1	26.1
All	2657	95.9	89.4	84.1	79.5	76.0

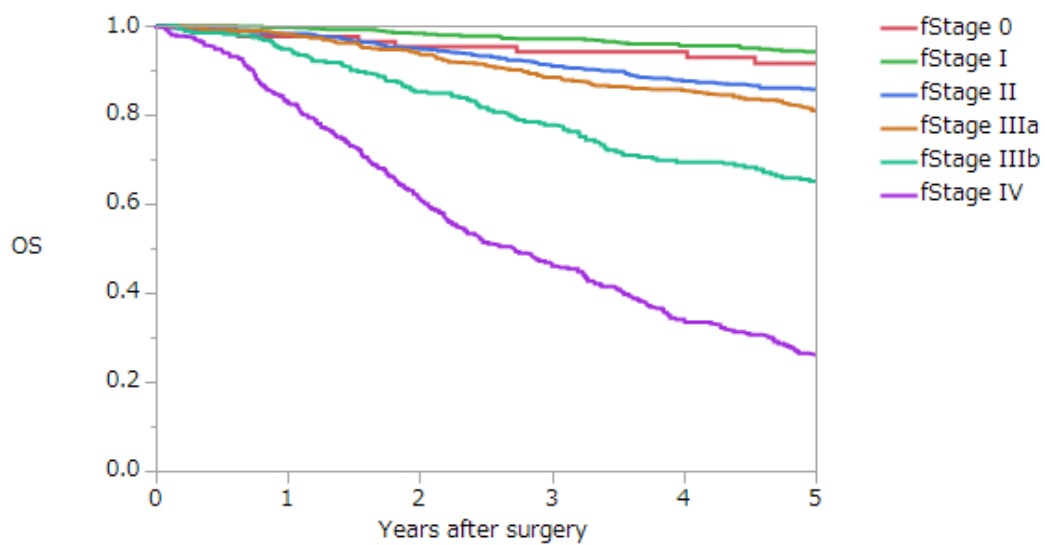


Table 4-49 Surgery-Overall survival rates according to liver metastasis (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
H0	6086	96.5	91.6	87.3	83.5	80.4
H1	310	90.9	70.8	58.2	48.6	42.8
H2	171	81.8	65.8	52.2	38.1	32.4
H3	242	62.6	32.5	18.7	10.4	7.4
Unknown	835					
All	7644	94.5	87.9	82.8	78.4	75.2

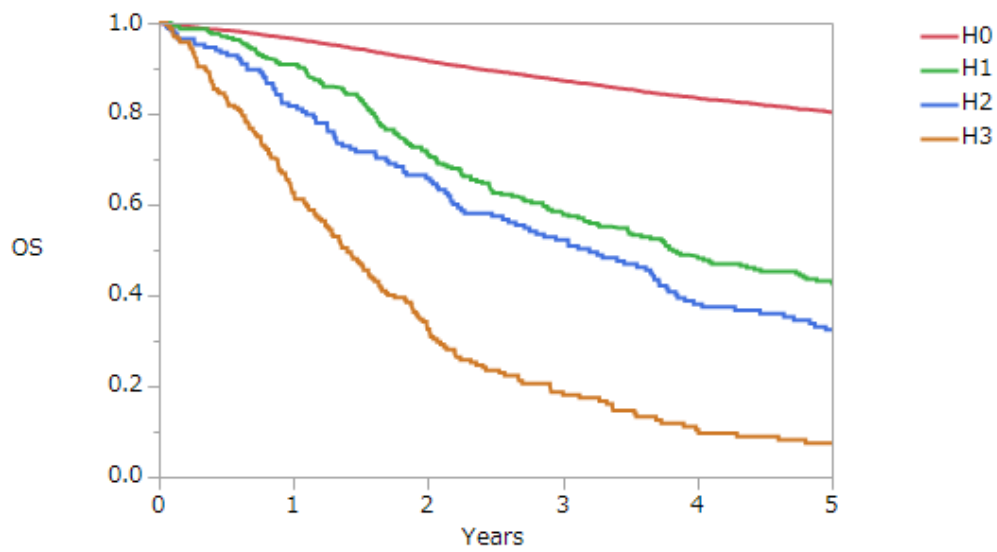


Table 4-50 Surgery-Overall survival rates according to peritoneal metastasis (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
P0	6511	95.7	89.8	85.0	80.9	77.6
P1	142	78.2	60.0	48.7	36.3	30.6
P2	51	78.9	54.4	33.2	19.0	14.2
P3	84	62.6	27.6	17.4	8.7	5.8
Unknown	856					
All	7644	94.5	87.9	82.8	78.4	75.2

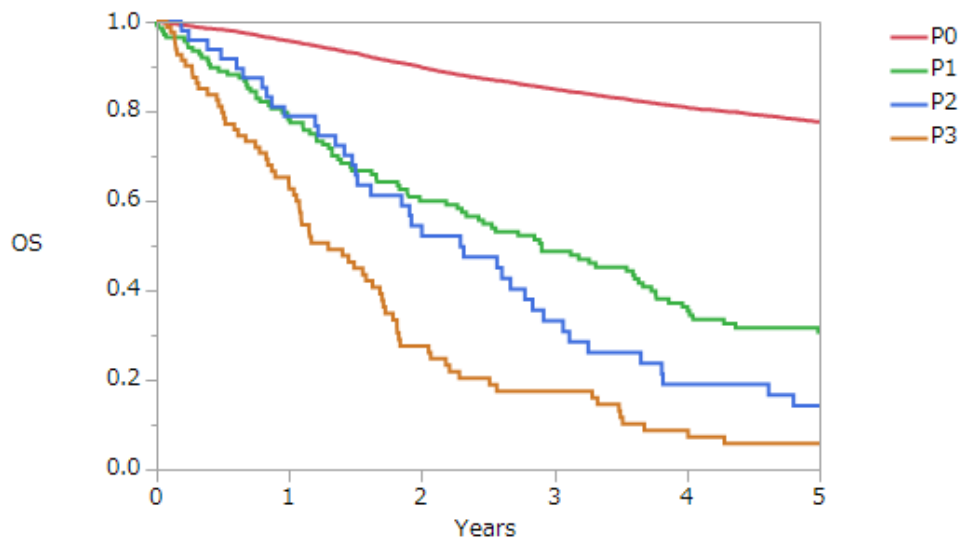


Table 4-51 Surgery-Overall survival rates according to lung metastasis (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
LM0	6236	95.4	89.2	84.4	80.1	76.9
LM1	113	78.8	50.5	38.0	28.4	21.7
LM2	9	88.9	66.7	44.4	22.2	11.1
LM3	73	68.2	50.1	19.4	10.1	7.5
Unknown	1213					
All	7644	94.5	87.9	82.8	78.4	75.2

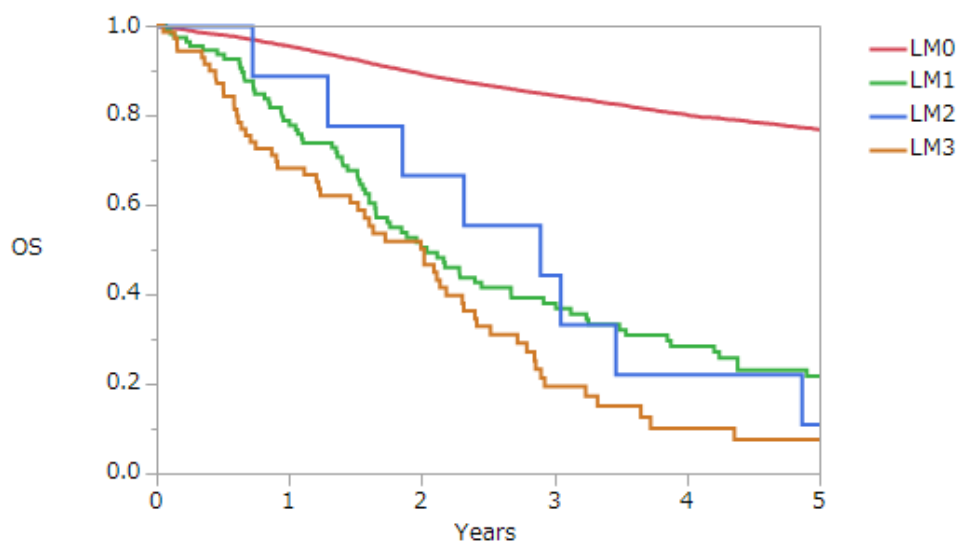


Table 4-52 Surgery-Overall survival rates according to distant metastasis (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
M0	6298	96.0	90.2	85.7	81.5	78.3
M1	389	74.7	52.8	38.4	28.2	23.1
Unknown	957					
All	7644	94.5	87.9	82.8	78.4	75.2

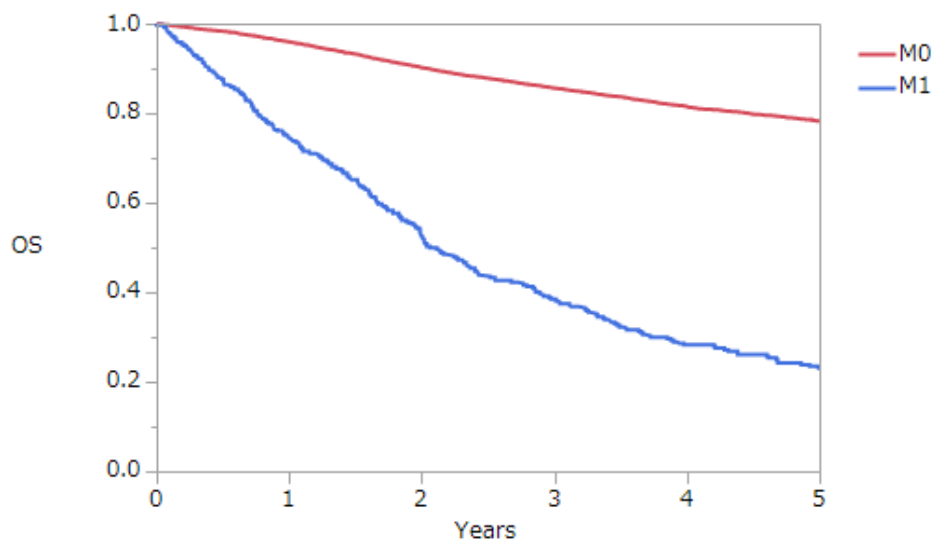
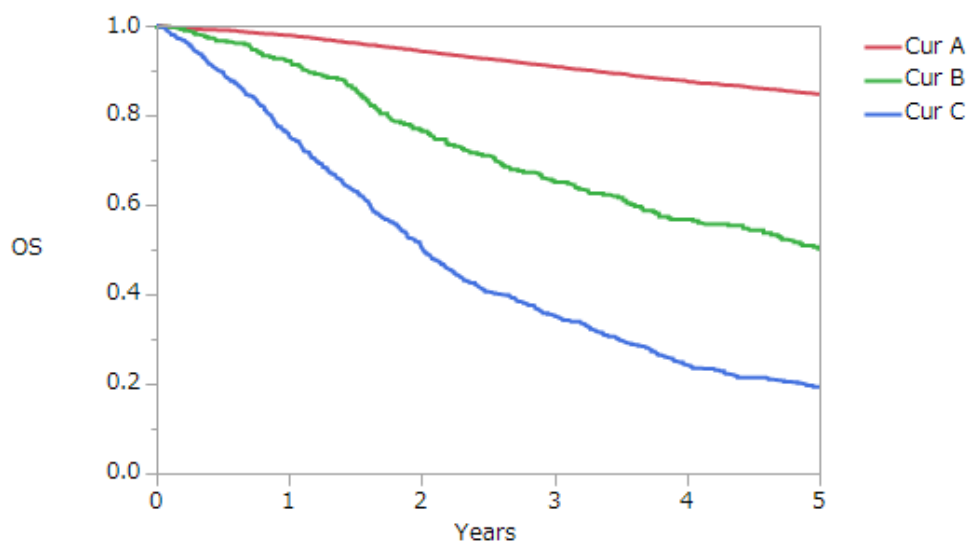


Table 4-53 Surgery-Overall survival rates according to curability (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
cur A	5608	97.8	94.3	90.9	87.6	84.7
cur B	365	92.1	76.8	65.4	56.7	49.8
cur C	811	75.5	50.4	35.3	24.2	19.3
Unknown	860					
All	7644	94.5	87.9	82.8	78.4	75.2



Participating institutions

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