

Multi-Institutional Registry of Large Bowel Cancer in Japan

Vol. 38

Cases treated in 2012

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 38 号 (Multi-Institutional Registry of Large Bowel Cancer in Japan, Vol. 38) をお届けします。本号は 2012 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 6322 例の調査報告書です。臨床病理学的事項は、大腸癌取り扱い規約第 7 版に従って記載されております。オンラインのみでの公開となり、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ました。それに伴い、従来は生命表法で集計していた生存分析は、Kaplan-Meier 法で集計しました。

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、大腸癌取り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。これら大腸癌取り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、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います。是非積極的にご活用いただきますようお願い申し上げます。

2022 年 1 月

大腸癌研究会

会長 杉原 健一

全国大腸癌登録委員会

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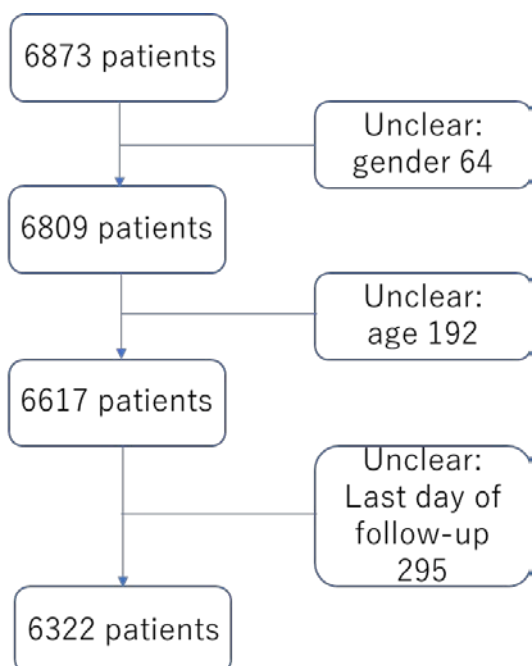
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Data-flow chart (Algorithm of data cleaning)

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 excision	420	6.6
Surgery after endoscopic excision	308	4.9
Surgery	5548	87.8
Non-surgery	46	0.7
Total	6322	100

Table 2-1 Endoscopic excision-Gender

Gender	Number	Percentage
Male	269	64
Female	151	36
Total	420	100

Table 2-2 Endoscopic excision-Age

Age (median)	67 (32-93)
Age (mean)	66.2 ± 11.3

Table 2-3 Endoscopic excision-Age classification

Age classification	Number	Percentage
20-29	0	0
30-39	7	1.7
40-49	22	5.2
50-59	77	18.3
60-69	134	31.9
70-79	135	32.1
80-89	41	9.8
90=<	4	1.0
Total	420	100

Table 2-4 Endoscopic excision-Tumor location

Tumor location	Number	Percentage
Cecum	17	4.0
Ascending	53	12.6
Transverse	40	9.5
Descending	15	3.6
Sigmoid	155	36.9
Rectosigmoid	43	10.2
Upper rectum	41	9.8
Lower rectum	55	13.1
Unknown	1	0.2
Total	420	100

Table 2-5 Endoscopic excision-Procedure

Procedure	Number	Percentage
Polypectomy	53	12.6
EMR	277	66.0
ESD	88	21.0
Unknown	2	0.5
Total	420	100

Table 2-6 Endoscopic excision-En bloc or piecemeal

Resection type	Number	Percentage
En bloc	364	86.7
Piecemeal	46	11.0
Unknown	10	2.4
Total	420	100

Table 2-7 Endoscopic excision-Macroscopic type

Macroscopic type	Number	Percentage
Ip	78	18.6
Isp	139	33.1
Is	34	8.1
Ila	69	16.4
Ilb	1	0.2
Ilc	4	1
Ila+Ilc	7	11.2
Ilc+Ila	0	0
Others	47	11.2
Unknown	41	9.8
Total	420	100

Table 2-8 Endoscopic excision-Tumor size

Median	15.5 (4-95) mm
Mean	19.2 ± 13.0 mm

Table 2-9 Endoscopic excision-Tumor size 2

Tumor size	Number	Percentage
≤5 mm	13	3.1
6-10 mm	82	19.5
11-15 mm	73	17.4
16-20 mm	74	17.6
21-30 mm	54	12.9
31-40 mm	15	3.6
>40 mm	25	6.0
Unknown	80	20
Total	420	100

Table 2-10 Endoscopic excision-Histologic type

Histologic type	Number	Percentage
Well differentiated	372	88.6
Moderately differentiated	40	9.5
Poorly differentiated	0	0
Neuroendocrine tumor	1	0.2
Others	3	0.7
Unknown	4	9.5
Total	420	100

Table 2-11 Endoscopic excision-Depth of tumor invasion

Depth of tumor invasion	Number	Percentage
pM	336	80
pSM	83	19.8
Unknown	1	0.2
Total	420	100

Table 2-12 Endoscopic excision-Distance of submucosal invasion

Distance of submucosal invasion	Number	Percentage
<1000 μ m	21	25.3
\geq 1000 μ m	37	44.6
Unknown	25	30.1
Total	83	100

Table 2-13 Endoscopic excision-Lymphatic invasion

Lymphatic invasion	Number	Percentage
ly0	387	92.1
ly1	10	2.4
ly2	0	0
ly3	5	1.2
Unknown	18	4.3
Total	420	100

Table 2-14 Endoscopic excision-Venous invasion

Venous invasion	Number	Percentage
v0	392	93.3
v1	7	16.7
v2	1	0.2
v3	1	0.2
Unknown	19	4.5
Total	420	100

Table 2-15 Endoscopic excision-Horizontal margin

Horizontal margin	Number	Percentage
HM0	379	90.2
HM1	15	3.6
Unknown	26	6.2
Total	420	100

Table 2-16 Endoscopic excision-Vertical margin

Vertical margin	Number	Percentage
VM0	388	92.4
VM1	5	1.2
Unknown	27	6.4
Total	420	100

Table 2-17 Endoscopic excision-Curability

Curability	Number	Percentage
cur EA	383	91.2
cur EC	14	3.3
Unknown	23	5.5
Total	420	100

Table 3-1 Surgery after endoscopic excision-Gender

Gender	Number	Percentage
Male	200	64.9
Female	108	35.1
Total	308	100

Table 3-2 Surgery after endoscopic excision-Age

Age (median)	65 (30-88)
Age (mean)	64.4 ± 10.7

Table 3-3 Surgery after endoscopic excision-Age classification

Age classification	Number	Percentage
20-29	0	0.0
30-39	8	2.6
40-49	24	7.8
50-59	46	14.9
60-69	127	41.2
70-79	88	28.6
80-89	15	4.9
90=<	0	0
Total	308	100

Table 3-4 Surgery after endoscopic excision-Tumor location

Tumor location	Number	Percentage
Cecum	10	3.2
Ascending	37	12
Transverse	28	9.1
Descending	18	5.8
Sigmoid	86	27.9
Rectosigmoid	36	11.7
Upper rectum	29	9.4
Lower rectum	56	18.2
Proctos	1	0.3
Unknown	7	2.2
Total	308	100

Table 3-5 Surgery after endoscopic excision-Endoscopic procedure

Procedure	Number	Percentage
Polypectomy	33	10.7
EMR	200	64.9
ESD	51	16.6
Others	1	0.3
Unknown	23	7.5
Total	308	100

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

Resection	Number	Percentage
En bloc	212	68.6
Piecemeal	41	13.3
Unknown	55	17.9
Total	308	100

Table 3-7 Surgery after endoscopic excision-Macroscopic type

Macroscopic type	Number	Percentage
Ip	36	11.7
Isp	88	28.6
Is	53	17.2
Ila	36	11.7
Ilb	0	0
Ilc	4	1.3
Ila+Ilc	24	7.8
Ilc+Ila	0	0
Others	20	6.5
Unknown	47	15.3
Total	308	100

Table 3-8 Surgery after endoscopic excision-Tumor size

Median	15 (4-69) mm
Mean	18.0 ± 11.1 mm

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

Tumor size	Number	Percentage
<=5 mm	10	3.2
6-10 mm	63	20.4
11-15 mm	41	13.3
16-20 mm	43	14.0
21-30 mm	40	13.0
31-40 mm	13	4.2
>40 mm	8	2.6
Unknown	90	29.2
Total	308	100

Table 3-10 Surgery after endoscopic excision-Histologic type

Histologic type	Number	Percentage
Well differentiated	191	62.0
Moderately differentiated	67	21.8
Poorly differentiated	2	0.6
Mucinous	0	0
Signet ring cell	0	0
Neuroendocrine tumor	13	4.2
Others	0	0
Unknown	35	11.4
Total	308	100

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

Depth of tumor invasion	Number	Percentage
pM	20	6.5
pSM	249	80.8
pMP	3	1.0
pSS	0	0.0
pSE	1	0.3
pA	1	0.3
Unknown	34	11.0
Total	308	100

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

Distance of submucosal invasion	Number	Percentage
<1000 μ m	21	8.4
\geq 1000 μ m	134	53.8
Unknown	94	37.8
Total	249	100

Table 3-13 Surgery after endoscopic excision-Lymphatic invasion

Lymphatic invasion	Number	Percentage
ly0	173	56.2
ly1	74	24.0
ly2	7	2.3
ly3	1	0.3
Unknown	53	17.2
Total	308	100

Table 3-14 Surgery after endoscopic excision-Venous invasion

Venous invasion	Number	Percentage
v0	163	52.9
v1	70	22.7
v2	18	5.8
v3	1	0.3
Unknown	56	18.2
Total	308	100

Table 3-15 Surgery after endoscopic excision-Horizontal margin

Horizontal margin	Number	Percentage
HM0	189	61.4
HM1	18	5.8
Unknown	101	32.8
Total	308	100

Table 3-16 Surgery after endoscopic excision-Vertical margin

Vertical margin	Number	Percentage
VM0	169	54.9
VM1	49	15.9
Unknown	90	29.2
Total	308	100

Table 3-17 Surgery after endoscopic excision-Endoscopic curability

Endoscopic curability	Number	Percentage
cur EA	139	45.1
cur EC	81	26.3
Unknown	88	28.6
Total	308	100

Table 3-18 Surgery after endoscopic excision-Operative approach

Operative approach	Number	Percentage
Transanal	3	1.0
Laparoscopic	156	50.6
Open	118	38.3
Unknown	31	10.0
Total	308	100

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

Type of anastomosis	Number	Percentage
End-to-end	133	43.2
Side-to-end	7	2.3
End-to-side	3	1.0
Side-to-side	2	0.6
Functional end-to-end	70	22.7
Unknown	93	30.2
Total	308	100

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

Type of anastomosis	Number	Percentage
Handsewn	34	11.0
Stapling	179	58.1
Unknown	95	30.8
Total	308	100

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

Type of anastomosis	Number	Percentage
D0	10	3.2
D1	13	4.2
D2	209	67.9
D3	54	17.5
Unknown	22	7.1
Total	308	100

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

Histologic type	Number	Percentage
Well differentiated	171	55.5
Moderately differentiated	55	17.9
Poorly differentiated	0	0
Mucinous	2	0.6
Signet ring cell	0	0
Neuroendocrine tumor	12	3.9
Others	0	0
Unknown	68	22.1
Total	308	100

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

Depth of tumor invasion	Number	Percentage
pM	12	3.9
pSM	212	68.8
pMP	6	1.9
pSS	10	3.2
pSE	1	0.3
pSI	1	0.3
Unknown	66	21.4
Total	308	100

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

Lymph node metastasis	Number	Percentage
pN0	253	82.1
pN1	38	12.3
pN2	1	0.3
pN3	1	0.3
Unknown	15	4.9
Total	308	100

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

Number of lymph node retrieved (median)	12 (0-70)
Number of lymph node retrieved (mean)	13.8 ± 9.8

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

Number of positive node (median)	0 (0-4)
Number of positive node (mean)	0.2 ± 0.6

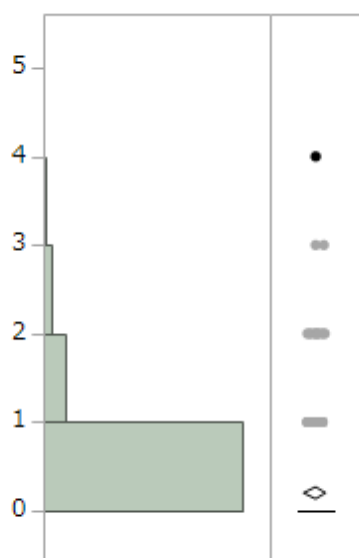


Table 3-27 Surgery after endoscopic excision-Liver metastasis

Liver metastasis	Number	Percentage
H0	302	98.1
H1	1	0.3
H2	0	0
H3	1	0.3
Unknown	4	1.3
Total	308	100

Table 3-28 Surgery after endoscopic excision-Peritoneal metastasis

Peritoneal metastasis	Number	Percentage
P0	301	97.7
P1	0	0
P2	0	0
P3	0	0
Unknown	7	2.3
Total	308	100

Table 3-29 Surgery after endoscopic excision-Pulmonary metastasis

Peritoneal metastasis	Number	Percentage
LM0	291	94.5
LM1	1	0.3
LM2	0	0
LM3	1	0.3
Unknown	15	4.9
Total	308	100

Table 3-30 Surgery after endoscopic excision-Distant metastasis other than liver

Distant metastasis	Number	Percentage
M0	300	97.4
M1	2	0.6
Unknown	6	1.9
Total	308	100

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

Curability	Number	Percentage
Cur A	300	97.4
Cur B	2	0.6
Cur C	2	0.6
Unknown	4	1.3
Total	250	100

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

Recurrence	Number	Percentage
Absent	289	93.8
Present	12	3.9
Unknown	7	2.3
Total	308	100

Table 3-33 Surgery after endoscopic excision-Recurrence site after surgery

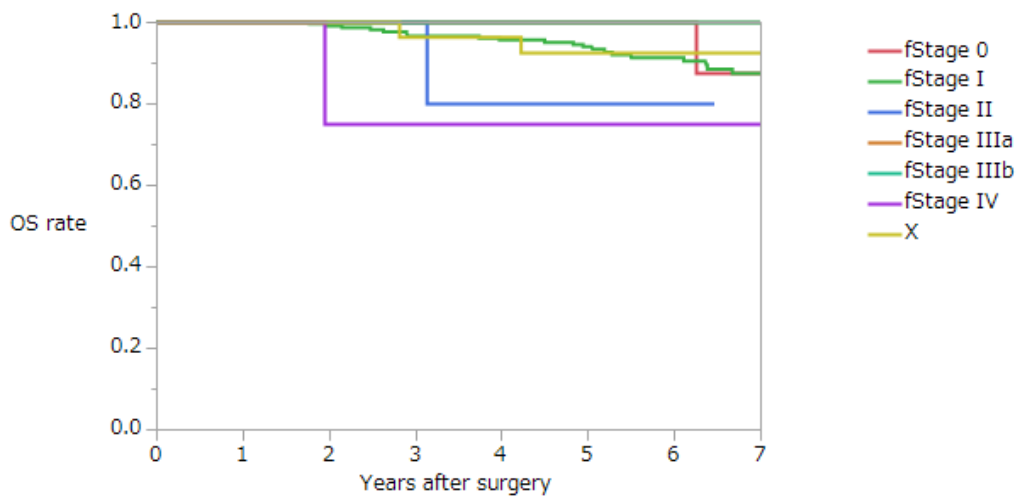
Fisrt recurrence site	Number
Anastomosis	0
Regional lymph node	3
Local	0
Lymph node (not regional)	2
Liver	2
Lung	5
Peritoneum	1
Bone	1
Brain	0
Adrenal gland	0
Skin	0
Others	0
(overlapping+)	

Table 3-34 Surgery after endoscopic excision-Treatment after recurrence

Treatment for recurr	Number
None	3
Curative surgery	5
Palliative surgery	1
Radiotherapy	0
Chemotherapy	3
Unknown	0
Total	12

Table3-35 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	13	100	100	100	100	100
Stage I	224	100	99.0	96.6	95.5	93.9
Stage II	6	100	100	80	80	80
Stage IIIa	29	100	100	100	100	100
Stage IIIb	3	100	100	100	100	100
Stage IV	4	100	75	75	75	75
Unknown	29					
All	308	100	98.9	96.8	95.7	94.1



Overall survival of all patients with surgery after endoscopic excision

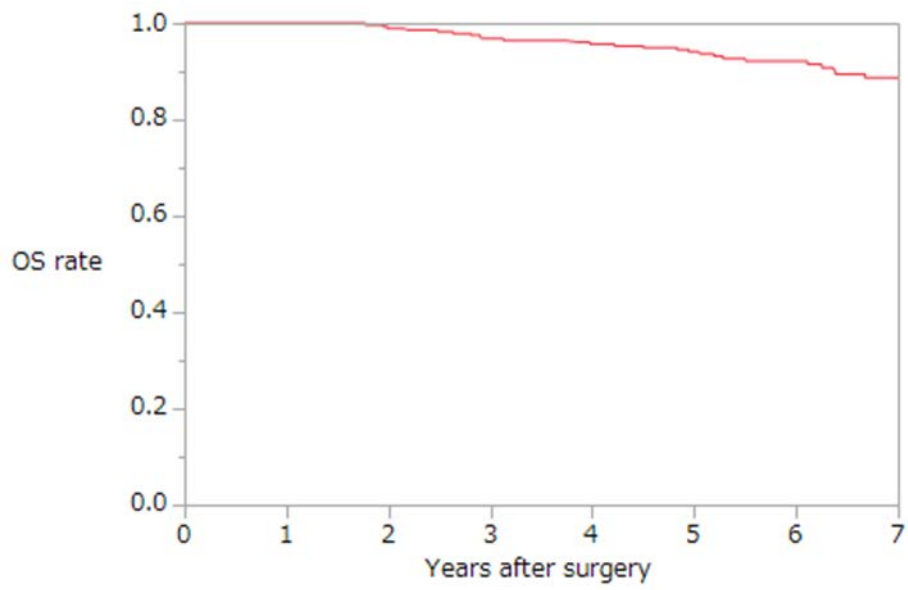


Table 4-1 Surgery-Gender

Gender	Number	Percentage
Male	3181	57.3
Female	2367	42.7
Total	5548	100

Table 4-2 Surgery-Age

Age (median)	69 (14-100)
Age (mean)	67.5 ± 12.0

Table 4-3 Surgery-Age classification

Age classification	Number	Percentage
<20	9	0.2
20-29	19	0.3
30-39	107	1.9
40-49	312	5.6
50-59	761	13.7
60-69	1738	31.3
70-79	1757	31.7
80-89	784	14.1
90=<	61	1.1
Total	5548	100

Table 4-4 Surgery-Tumor location

Tumor location	Number	Percentage
Processus vermiformis	37	0.70
Cecum	439	7.9
Ascending	842	15.2
Transverse	517	9.3
Descending	214	3.9
Sigmoid	1274	23.0
Rectosigmoid	668	12
Upper rectum	633	11.4
Lower rectum	792	14.3
Proctos (anal canal)	44	0.80
Unknown	88	1.6
Total	5548	100

Table 4-5 Surgery-Preoperative serum CEA value

Preoperative serum CEA value	Number	Percentage
Normal	3082	55.6
<2 x ULN	816	14.7
<4 x ULN	484	8.7
<8 x UNL	298	5.4
>=8 x UNL	4508.1	8.7
Unknown	418	7.5
Total	5548	100

Table 4-6 Surgery-Multiple primary cancers

Multiple primary cancers	Number	Percentage
Absent	4654	83.9
Synchronous	273	4.9
Metachronous	486	8.8
Synchronous and metachronous	22	0.4
Unknown	113	2.0
Total	5548	100

Table 4-7 Surgery-Synchronous multiple colorectal cancers

Synchronous multiple CRC	Number	Percentage
Absent	3315	59.8
Present	317	5.7
Unknown	1916	34.5
Total	5548	100

Table 4-8 Surgery-Metachronous multiple colorectal cancers

Metachronous multiple CRC	Number	Percentage
Absent	3890	70.1
Present	138	2.5
Unknown	1520	27.4
Total	5548	100

Table 4-9 Operative procedure

Operative procedure	Number	Percentage
Polypectomy	0	0.00
Tumorectomy	26	0.5
Local excision	19	0.3
Appendectomy	4	0.07
Ileocecal resection	478	8.6
Partial colectomy	409	7.4
Right hemicolectomy	935	16.9
Left hemicolectomy	162	2.9
Sigmoidectomy	1016	18.3
Subtotal colectomy	15	0.3
Total colectomy	10	0.2
Total proctocolectomy	29	0.5
High anterior resection	479	8.6
Low anterior resection	1123	20.2
Hartmann's operation	194	3.5
Abdominoperineal resection	307	5.5
Others	156	2.8
Unknown	186	3.4
Total	5548	100

Table 4-10 Surgery-Operative approach

Operative approach	Number	Percentage
Transanal	36	0.6
Laparoscopic	2858	51.5
Open	2155	38.8
Others	12	0.2
Unknown	487	8.8
Total	5548	100

Table 4-11 Surgery-Type of anastomosis

Type of anastomosis	Number	Percentage
End-to-end	2350	42.3
Side-to-end	145	2.6
End-to-side	91	1.6
Side-to-side	69	1.2
Functional end-to-end	1272	22.9
Unknown	1621	29.2
Total	5548	100

Table 4-12 Surgery-Type of anastomosis 2

Type of anastomosis	Number	Percentage
Handsewn	620	11.2
Stapling	3440	62.0
Unknown	1488	26.8
Total	5548	100

Table 4-13 Surgery- Lymph node dissection

Lymph node dissection	Number	Percentage
D0	107	1.9
D1	252	4.5
D2	1548	27.9
D3	3266	58.9
Unknown	375	6.8
Total	5548	100

Table 4-14 Surgery-Tumor size

Tumor size	Number	Percentage
<=20 mm	831	15.0
21-40 mm	1793	32.3
41-60 mm	1380	24.9
61-80 mm	650	11.7
81-100 mm	205	3.7
>100 mm	103	1.9
Unknown	586	10.6
Total	5848	100

Table 4-15 Surgery-Histologic type

Histologic type	Number	Percentage
Well differentiated	2040	36.8
Moderately differentiated	2826	50.9
Poorly differentiated	201	3.6
Mucinous	217	3.9
Signet ring cell	11	0.2
Neuroendocrine tumor	17	0.3
Others	47	0.8
Unknown	189	3.4
Total	5548	100

Table 4-16 Surgery-Histologic type 2

Histologic type	Number	Percentage
Adenocarcinoma	5295	95.4
Other malignancies	64	1.2
Unknown	189	3.4
Total	5548	100

Table 4-17 Surgery-Depth of tumor invasion

Depth of tumor invasion	Number	Percentage
pTis	193	3.5
pM	661	11.9
pSM	722	13.0
pMP	2033	36.6
pSS	818	14.7
pSI	343	6.2
pA	459	8.3
pAI	70	1.3
Unknown	249	4.5
Total	5548	100

Table 4-18 Surgery-Number of invaded organs during surgery

Number of invaded organs	Number	Percentage
0	1521	27.4
1	499	9.1
2	77	1.4
3 or more	16	0.3
Unknown	3435	61.9
Total	5548	100

Table 4-19 Surgery-Lymphatic invasion

Lymphatic invasion	Number	Percentage
ly0	2410	43.4
ly1	1900	34.2
ly2	711	12.8
ly3	258	4.7
Unknown	269	4.8
Total	5548	100

Table 4-20 Surgery-Venous invasion

Venous invasion	Number	Percentage
v0	1749	31.5
v1	1939	35.0
v2	1153	20.8
v3	434	7.8
Unknown	273	4.9
Total	5548	100

Table 4-21 Surgery-Interstitium

Interstitium	Number	Percentage
Medullary pattern	247	4.5
Intermediate pattern	2821	50.8
Scirrhous pattern	44	0.8
Unknown	2436	43.9
Total	5548	100

Table 4-22 Surgery-Infiltrative growth pattern

Infiltrative growth pattern	Number	Percentage
INF α	324	5.8
INF β	3655	65.9
INF γ	138	2.5
Unknown	1431	25.8
Total	5548	100

Table 4-23 Surgery-Proximal margin

Proximal margin	Number	Percentage
PM0	5211	93.9
PM1	4	0.07
Unknown	333	6.0
Total	5548	100

Table 4-24 Surgery-Distal margin

Distal margin	Number	Percentage
DM0	5203	93.8
DM1	8	0.1
Unknown	337	6.1
Total	5548	100

Table 4-25 Surgery-Circumferential resection margin

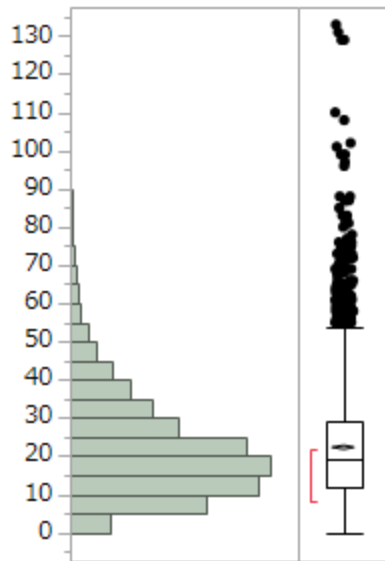
Circumferential resection margin	Number	Percentage
RM0	4666	84.1
RM1	108	1.9
Unknown	774	14.0
Total	5548	100

Table 4-26 Surgery-lymph node metastasis

Lymph node metastasis	Number	Percentage
pN0	3105	56.0
pN1	1312	23.6
pN2	615	11.1
pN3	261	4.7
Unknown	255	4.6
Total	5548	100

Table 4-27 Surgery-number of lymph node retrieved (N = 4798)

Number of lymph node retrieved (median)	19 (0-133)
Number of lymph node retrieved (mean)	22.2 ± 14.3



* 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 = 4818)

Number of positive node (median)	0 (0-52)
Number of positive node (mean)	1.6 ± 3.4

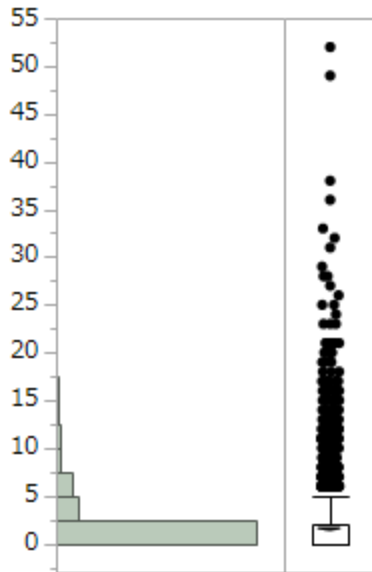


Table 4-29 Surgery-number of paracolic lymph node retrieved (N = 4484)

Number of lymph node retrieved (median)	11 (0-108)
Number of lymph node retrieved (mean)	12.6 ± 9.0

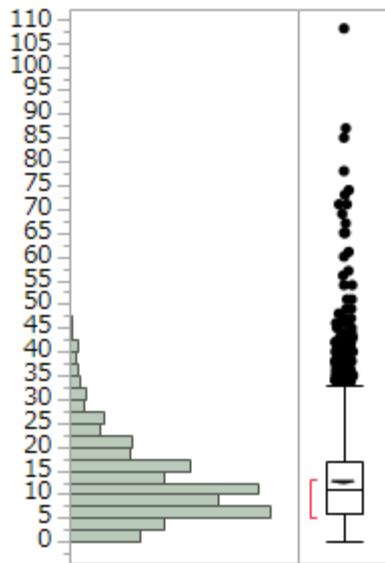


Table 4-30 Surgery-number of positive paracolic lymph node (N = 4504)

Number of positive node (median)	0 (0-47)
Number of positive node (mean)	1.2 ± 2.7

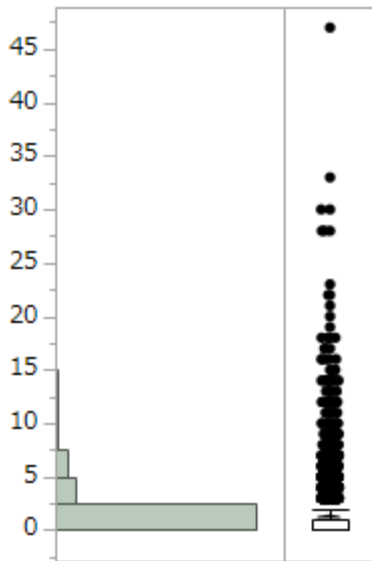


Table 4-31 Surgery-number of intermediate lymph node retrieved (N = 4124)

Number of lymph node retrieved (median)	5 (0-52)
Number of lymph node retrieved (mean)	5.7 ± 4.6

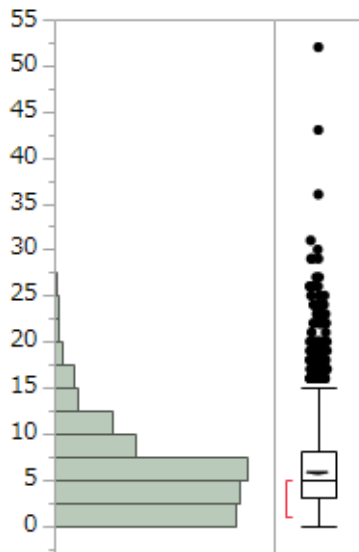


Table 4-32 Surgery-number of positive intermediate lymph node (N = 4144)

Number of positive node (median)	0 (0-27)
Number of positive node (mean)	0.3 ± 1.0

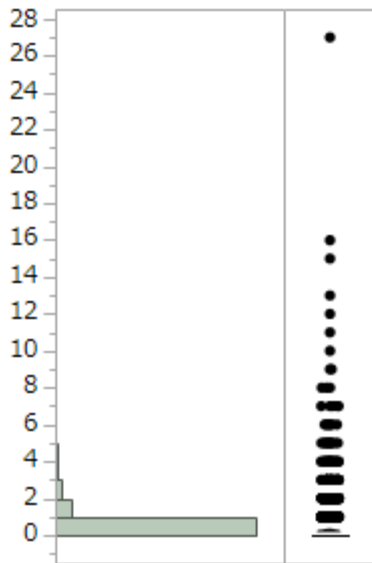


Table 4-33 Surgery-number of main lymph node retrieved (N = 3347)

Number of lymph node retrieved (median)	2 (0-44)
Number of lymph node retrieved (mean)	3.2 ± 3.4

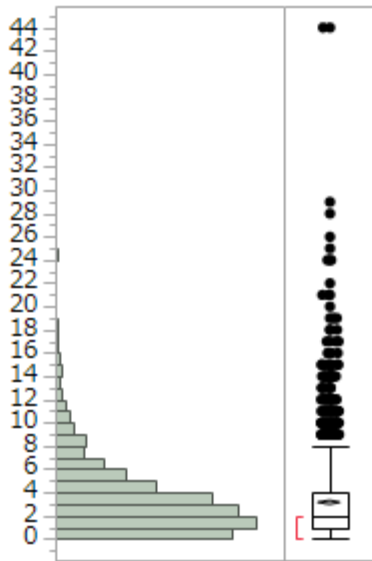


Table 4-34 Surgery-number of positive main lymph node (N = 3356)

Number of positive node (median)	0 (0-9)
Number of positive node (mean)	0.1 ± 0.5

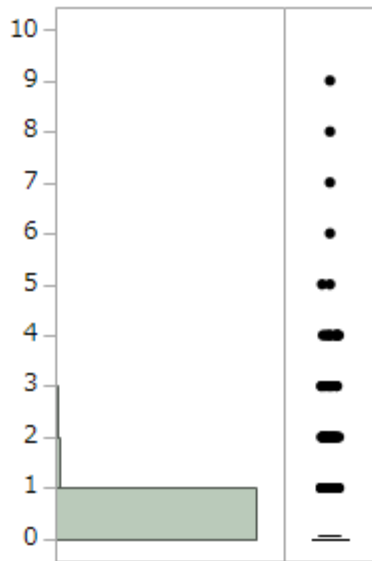


Table 4-35 Surgery-number of lateral pelvic lymph node retrieved (N = 856)

Number of lymph node retrieved (median)	0 (0-63)
Number of lymph node retrieved (mean)	6.3 ± 9.6

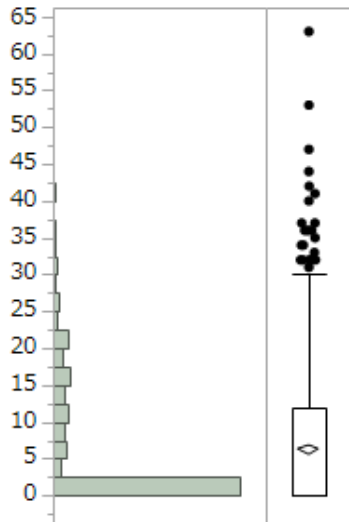


Table 4-36 Surgery-number of positive lateral pelvic lymph node (N = 856)

Number of positive node (median)	0 (0-16)
Number of positive node (mean)	0.2 ± 1.1

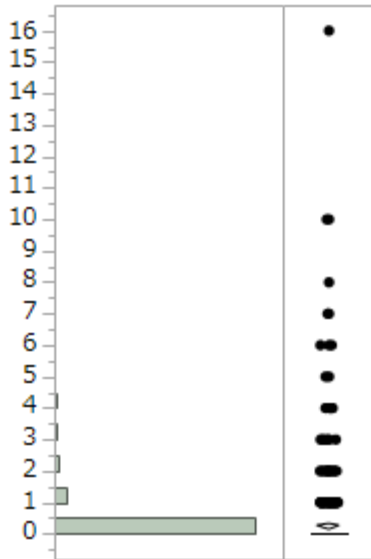


Table 4-37 Surgery-liver metastasis

Liver metastasis	Number	Percentage
H0	4860	87.6
H1	250	4.5
H2	162	2.9
H3	149	2.7
Unknown	127	2.3
Total	5548	100

Table 4-38 Surgery-Peritoneal metastasis

Peritoneal metastasis	Number	Percentage
P0	5130	92.5
P1	118	2.2
P2	54	1.0
P3	83	1.5
Unknown	163	2.9
Total	5548	100

Table 4-39 Surgery-Distant metastasis other than liver

Distant metastasis	Number	Percentage
M0	4948	89.2
M1	435	7.8
Unknown	165	3.0
Total	5548	100

Table 4-40 Surgery-Lung metastasis

Lung metastasis	Number	Percentage
LM0	4940	89
LM1	119	2.1
LM2	43	0.8
LM3	71	1.3
Unknown	375	6.8
Total	5548	100

Table 4-41 Surgery-Curability after surgery

Curability	Number	Percentage
Cur A	4433	79.9
Cur B	264	4.8
Cur C	669	12.1
Unknown	182	3.3
Total	5548	100

Table 4-42 Surgery-Recurrence after surgery

recurrence	Number	Percentage
Absent	4119	74.2
Present	991	17.9
Unknown	438	7.9
Total	5548	100

Table 4-43 Surgery-Recurrence rate according to stage

	Stage 0	Stage I	Stage II	Stage IIIa	Stage IIIb	Stage IV	Unknown
Absent	189 (92.2)	996 (94.8)	1325 (82.5)	659 (75.9)	384 (58.8)	384 (41.7)	182 (74.6)
Present	4 (2.0)	36 (3.4)	220 (13.7)	196 (22.6)	241 (36.9)	257 (27.9)	37 (15.2)
Unknown	12 (5.9)	19 (1.8)	61 (3.8)	13 (1.5)	28 (4.3)	280 (30.4)	25 (10.3)
Total	205	1051	1606	868	653	921	244

Table 4-44 Surgery-Recurrence site after surgery

First recurrence site	Number
Anastomosis	43
Regional lymph node	80
Local	69
Lymph node (not regional)	98
Liver	361
Lung	329
Peritoneum	124
Bone	44
Brain	18
Adrenal gland	3
Skin	4
Others	38
(overlapping+)	

Table 4-45 Surgery-Treatment for recurrence

Treatment for recurrence	Number	Percentage
None	138	13.9
Curative surgery	320	323.0
Palliative surgery	16	1.6
Radiation	51	5.1
Chemotherapy	354	35.7
Others	16	1.6
Unknown	96	9.7
Total	991	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	205	97.9	95.0	92.5	90.5	89.0
Stage I	1051	98.6	97.0	94.9	93.6	91.5
Stage II	1606	96.8	93.5	90.0	86.5	83.5
Stage IIIa	868	97.0	94.2	89.8	85.1	91.9
Stage IIIb	653	93.9	85.8	77.2	71.8	68.0
Stage IV	921	79.1	58.7	44.6	34.8	29.3
Unknown	244					
All	5548	93.8	87.5	81.8	77.3	74.0

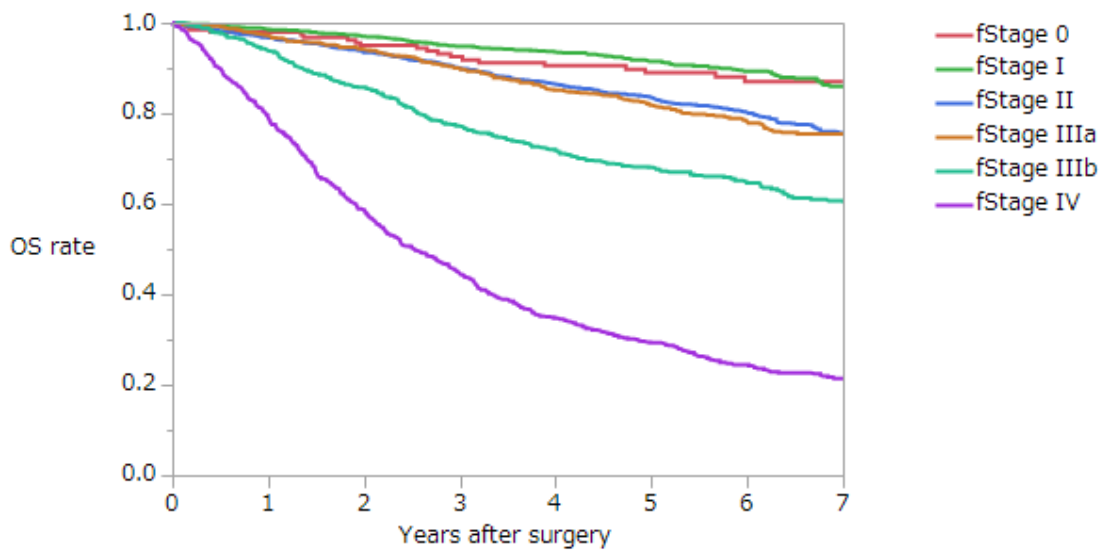


Table 4-47 Surgery-Overall survival rates after surgery (colon) (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
Stage 0	135	97.6	97.6	94.9	93.0	90.7
Stage I	601	99.0	97.4	94.9	93.5	92.3
Stage II	1030	97.0	94.0	90.8	87.1	84.1
Stage IIIa	508	96.5	94.0	90.5	86.4	82.5
Stage IIIb	368	94.1	85.8	77.6	73.1	70.0
Stage IV	579	80.6	59.6	44.3	34.7	29.5
All	3221	94.1	87.8	82.1	77.8	74.7

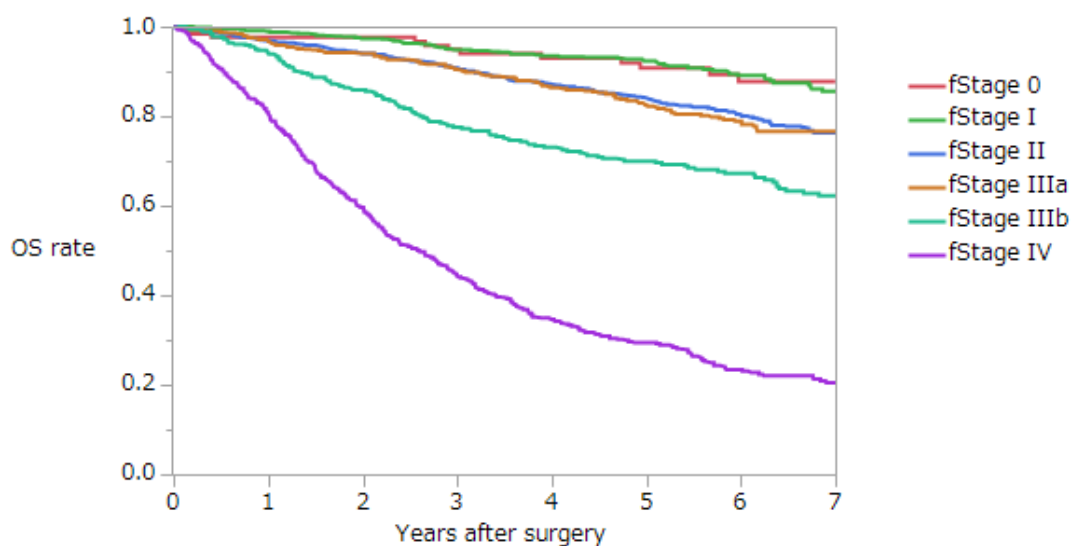


Table 4-48 Surgery-Overall survival rates after surgery (rectum) (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
Stage 0	67	100.0	92.7	90.5	88.3	88.3
Stage I	445	98.2	96.5	94.8	93.5	90.3
Stage II	570	96.6	92.8	89.1	85.7	83.1
Stage IIIa	355	97.7	94.4	89.2	83.2	81.1
Stage IIIb	274	93.7	85.5	76.6	70.7	65.7
Stage IV	313	78.2	60.3	47.7	36.7	30.4
All	2024	94.0	87.9	82.4	77.5	74.1

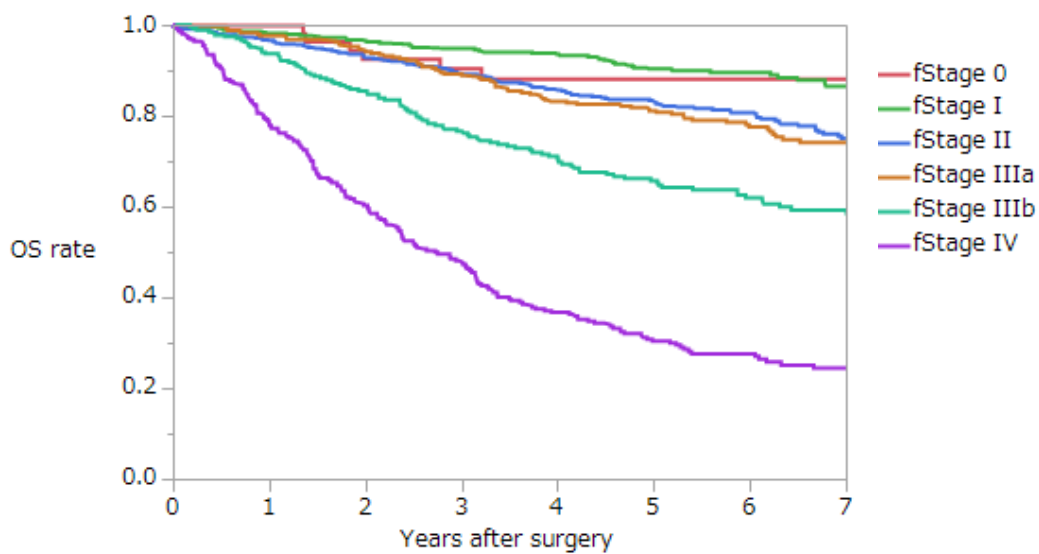


Table 4-49 Surgery-Overall survival rates according to liver metastasis (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
H0	4860	95.8	91.2	86.5	82.7	79.6
H1	250	86.2	70.7	58.5	46.0	40.3
H2	162	76.1	54.2	36.6	25.0	20.6
H3	149	68.8	42.7	28.1	18.4	15.8
Unknown	127					

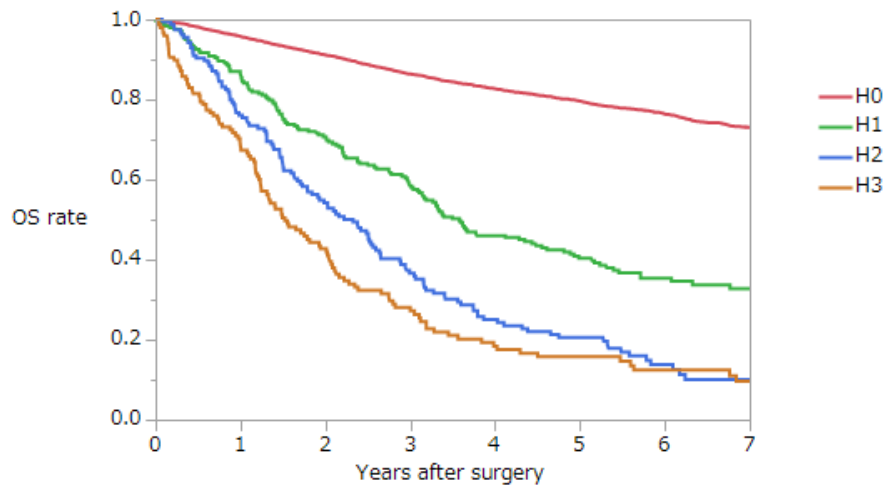


Table 4-50 Surgery-Overall survival rates according to peritoneal metastasis (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
P0	5130	95.1	90.1	85.0	80.6	77.5
P1	118	75.2	57.7	43.2	32.2	24.1
P2	54	83.9	49.3	23.5	18.8	16.1
P3	83	59.8	21.8	8.2	6.6	3.3
Unknown	163					

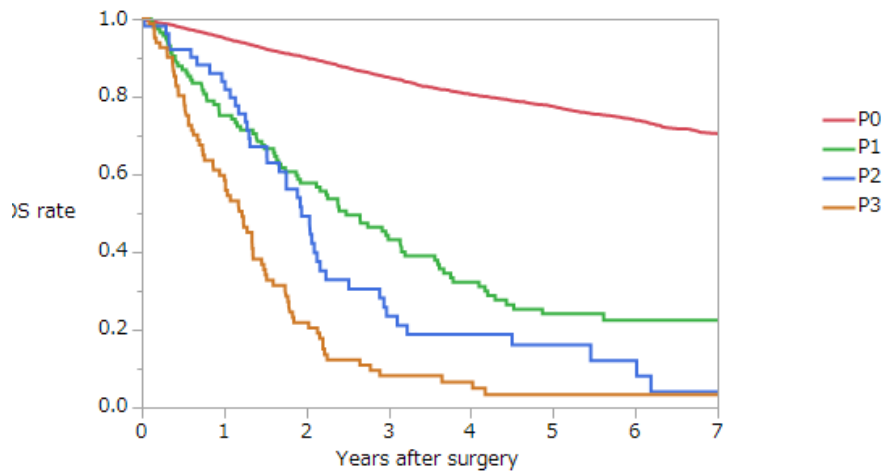


Table 4-51 Surgery-Overall survival rates according to lung metastasis (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
LM0	4940	94.8	89.5	84.4	80.3	77.0
LM1	119	74.1	54.6	42.6	34.5	27.1
LM2	43	78.4	55.2	42.0	28.5	22.8
LM3	71	79.3	58.5	31.1	11.9	7.1
Unknown	375					

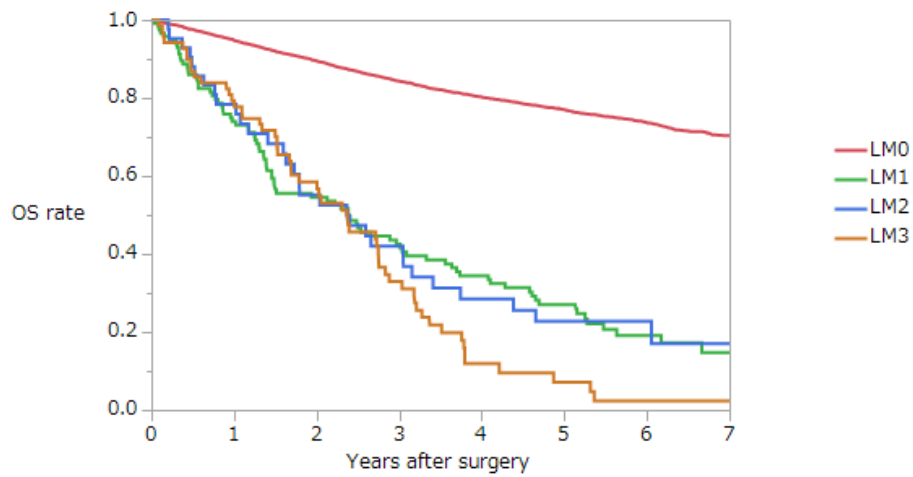


Table 4-52 Surgery-Overall survival rates according to distant metastasis other than liver metastasis (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
M0	4948	95.7	91.0	86.3	82.0	78.9
M1	435	74.9	52.4	37.8	30.5	25.5
Unknown	165					

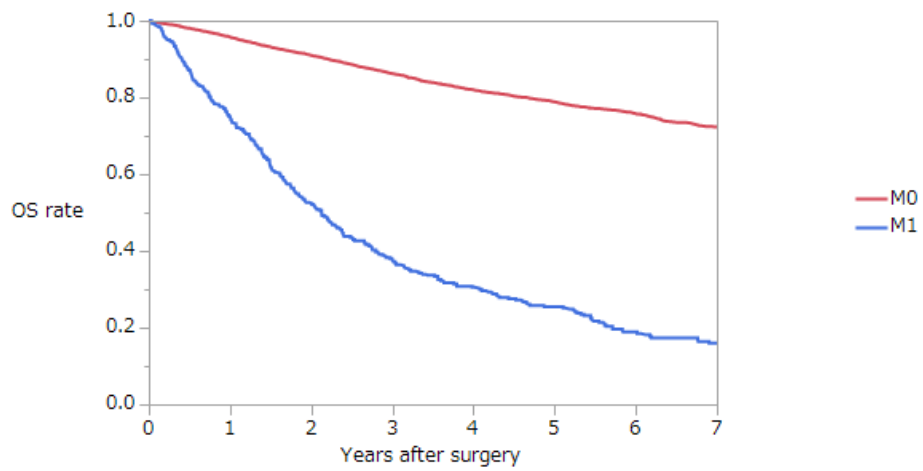
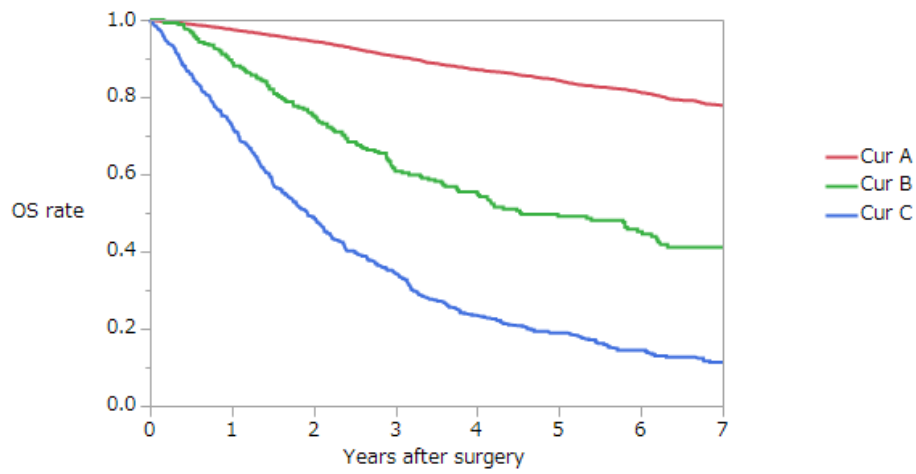


Table 4-53 Surgery-Overall survival rates according to curability (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
Cur A	4433	97.5	94.4	90.6	87.1	84.3
Cur B	264	89.2	75.2	60.7	55.1	49.2
Cur C	669	72.7	48.9	34.5	23.3	18.9
Unknown	182					



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