Carcinoma of the Vagina

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STAGING

Anatomy

Primary site

The vagina extends from the vulva upward to the uterine cervix. Cases should be classified as carcinoma of the vagina when the primary site of the growth is in the vagina. Tumors present in the vagina as secondary growths from either genital or extra-genital sites should be excluded. A growth that has extended to the portio and reached the area of the external os should always be allotted to carcinoma of the cervix. A growth limited to the urethra should be classified as carcinoma of the urethra. Tumor involving the vulva should be classified as carcinoma of the vulva. There should be histologic verification of the disease.

Nodal stations

The vagina is drained by lymphatics to the pelvic nodes in its upper two-thirds and to the inguinal nodes in the lower third.

Metastatic sites

The most common sites of distant spread include the lungs, liver and bony skeleton. The rules for staging are similar to those for carcinoma of the cervix.

Table 1
Carcinoma of the vagina: FIGO nomenclature

Stage 0	Carcinoma *in situ*; intraepithelial neoplasia Grade III
Stage I	The carcinoma is limited to the vaginal wall
Stage II	The carcinoma has involved the subvaginal tissue but has not extended to the pelvic wall
Stage III	The carcinoma has extended to the pelvic wall
Stage IV	The carcinoma has extended beyond the true pelvis or has involved the mucosa of the bladder or rectum; bullous edema as such does not permit a case to be allotted to Stage IV.
	IVa Tumor invades bladder and/or rectal mucosa and/or direct extension beyond the true pelvis
	IVb Spread to distant organs

Histopathologic types

Squamous cell carcinoma is the most common type of cancer occurring in the vagina, but infrequently an adenocarcinoma may occur.

Histopathologic grade (G)

- GX: Grade cannot be assessed
- G1: Well differentiated
- G2: Moderately differentiated
- G3: Poorly or undifferentiated

DEFINITIONS OF TREATMENTS

Treatment definitions are given in Table 3.

DATA ANALYSIS

Summary and comments

Forty-three centers have contributed with the data on 289 patients treated for vaginal cancer. Of these, only nine (21%) have had the experience of treating 10 or more patients during the three years period reported here. In these nine centers, 141 patients (48.8%) of the total patients were treated. This is evidence for the rarity of vaginal cancer and the lack of referral to centralization of treatment once the disease is diagnosed.

Table 2
Carcinoma of the vagina: Stage grouping for vaginal cancer

FIGO	UICC		
	T	N	M
0	Tis	N0	M0
I	T1	N0	M0
II	T2	N0	M0
III	T1	N1	M0
	T2	N1	M0
	T3	N0	M0
	T3	N1	M0
IVa	T4	Any N	M0
IVb	Any T	Any N	M1

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Table 3
Carcinoma of the vagina: Definitions of treatments

Treatment	Definition
None	No treatment.
Surgery alone	Surgery as first therapy and no other therapy(ies) within 90 days from the date of surgery. Subsequently, patients can be given any further treatment.
Radiotherapy alone	External radiotherapy and/or intracavitary irradiation as first therapy(ies) and no other therapy(ies) within 90 days from the end of teletherapy/brachytherapy. Subsequently, patients can be given any further treatment.
Radio-surgery	External radiotherapy/intracavitary irradiation as first therapy and then surgery within 90 days from the end of teletherapy/brachytherapy. Subsequently, patients can be given any further treatment. (Chemotherapy can be associated within 120 days from the date of surgery.)
Neoadjuvant chemotherapy + surgery	Chemotherapy as first therapy and then surgery within 42 days from the end of chemotherapy. Subsequently, patients can be given any further treatment.
Surgery + adjuvant radiotherapy	Surgery as first therapy and then radiotherapy within 90 days from the date of surgery. Subsequently, patients can be given any further treatment. (Chemotherapy can be associated within 120 days from the date of surgery.)
Surgery + adjuvant chemotherapy	Surgery as first therapy and then chemotherapy within 90 days from the date of surgery or of the end of radiotherapy.
Chemo-radiotherapy	Radiotherapy with chemotherapy (either neoadjuvant, concomitant or sequential) administered together or at least within 90 days from the end of either therapy.
Chemotherapy alone	Chemotherapy as first therapy and no other therapy(ies) within 90 days from the end of chemotherapy. Subsequently, patients can be given any further treatment.

While the treatment for Stage 0 is by surgery in most countries (Table 5), once invasion has been documented radiotherapy becomes the treatment of choice.

The age distribution is mostly in the seventh decade of life and beyond where 60% of the women are diagnosed. The most common tumors are epidermoid, clear cell and melanoma (9 cases each).

Radiation therapy is by far the most common treatment given to 43% of the patients. Surgery alone or surgery with adjuvant radiotherapy is given to 12% each.

Complete removal of primary tumor was reported in 91/153 (60%) of evaluable patients. However, in 112 patients (Table 14) recurrence was later reported.

Interestingly, both surgery alone and chemotherapy followed by surgery were associated with 75% 5-year survival.

FIGO stage was a most valuable predictor for survival where the 5-year survival dropped from 95% to 67%, 38.5%, 33.4% and 18.9% for Stages 0 through IV.

In the same manner as vulvar cancer, advanced age was associated with a poor outcome and especially in women over the age of 70 who have only a 39% 5-year survival.

Melanoma appears to be the worst histologic type although the number of reported cases is extremely low, 8 patients.

Finally, in a Cox proportional hazard regression model it became evident that older age and mode of therapy are the best predictors for survival for both Stage I and II disease.

Table 4
Carcinoma of the vagina: patients treated in 1996–98. Distribution of patients by center and stage

		All	Not available	Stage 0	Stage I	Stage II	Stage III	Stage IV
All centres		289	12	23	60	85	63	46
South Africa	Pretoria (G Lindeque)	4	–	–	–	2	1	1
Argentina	Buenos Aires (R Testa)	1	–	–	–	–	–	1
	Neuquén (GH Focaccia)	1	–	–	–	1	–	–
Canada	Montreal (GW Stanimir)	2	–	–	1	–	1	–
Chile	Temuco (I Capurro)	4	–	–	–	1	3	–
USA	Baltimore MA (F Montz, RE Bristow)	8	1	–	2	2	2	1
	Columbus OH (J Fowler)	8	–	–	2	4	2	–
	Jacksonville FL (BU Sevin)	3	–	–	1	1	1	–
	Nashville TN (HW Jones)	10	1	3	3	1	1	1
	New York NY (R Barakat)	9	–	2	1	3	1	2
	Orange CA (PJ DiSaia)	10	–	7	–	1	1	1
China	Hong Kong (HSY Ngan)	9	4	1	–	2	1	1
India	Bangalore (KU Devi)	16	–	–	–	5	10	1
Japan	Kumamoto (H Okamura)	3	–	–	1	1	1	–
	Nagasaki (T Ishimaru)	5	–	–	4	1	–	–
	Osaka (A Suzuki)	1	–	–	–	1	–	–
	Tokyo (K Kinoshita)	1	–	–	1	–	–	–
	Sagamihara (H Kuramoto)	5	–	–	3	1	–	1
Korea	Seoul (JE Mok)	2	–	–	1	–	–	1
Thailand	Bangkok (V Linasmita)	1	–	–	1	–	–	–
	Songkhla (V Wootipoom)	19	–	–	1	6	4	8
Austria	Graz (R Winter)	17	–	6	3	5	2	1
	Innsbruck (C Marth)	9	4	–	2	–	1	2
Croatia	Zagreb (S Jukić)	21	–	1	5	7	5	3
Czech Republic	Brno (A Dörr)	7	–	–	–	3	3	1
	Prague (E Kmonícková)	7	–	–	1	3	1	2
Finland	Turku (T Salmi)	3	–	–	–	2	1	–
France	Bordeaux (ML Campo)	4	–	–	–	3	1	–
	Lille (E Leblanc)	5	–	–	1	4	–	–
Germany	Hannover (H Kühnle)	4	–	1	2	–	1	–
	Kiel (D Weisner)	7	–	–	2	1	2	2
	Würzburg (J Dietl)	5	1	–	2	1	–	1
Portugal	Coimbra (C Freire de Oliveira)	3	–	–	1	–	–	2
Slovenia	Maribor (I Takač)	6	–	–	1	2	3	–
Spain	Barcelona (S Dexeus)	4	–	1	1	2	–	–
	Barcelona (J Pahisa Fabregas)	6	–	–	1	3	2	–
	Cruces-Baracaldo (FJ Rodríguez-Escudero)	1	–	–	–	1	–	–
	Las Palmas de Gran Canaria (O Falcón Vizcaino)	2	–	–	–	1	–	1
	Madrid (P de La Fuente)	1	–	–	–	–	1	–
Sweden	Ghotenburg (G Horvath)	20	–	1	5	4	4	6
	Örebro (B Sorbe)	13	–	–	6	3	4	–
Ukraine	Odessa (AA Zelinsky)	15	–	–	2	6	1	6
Australia	Carlton (M Quinn)	7	1	–	3	1	2	–

Table 5
Carcinoma of the vagina: patients treated in 1996–98. Distribution of patients (%) by country and treatment (Stage 0), $n = 23$

Country	Number of patients	First line of treatment (%)									
		None	Surgery alone	RT alone	Radio-surgery	Neoadj CT	Surg + adj RT	Surg + adj CT	CT + RT	CT alone	Other non-standard
All	23	17	48	4	–	4	–	–	–	–	26
USA	12	25	75	–	–	–	–	–	–	–	–
China	1	–	–	–	–	100	–	–	–	–	–
Austria	6	–	–	–	–	–	–	–	–	–	100
Croatia	1	100	–	–	–	–	–	–	–	–	–
Germany	1	–	100	–	–	–	–	–	–	–	–
Spain	1	–	100	–	–	–	–	–	–	–	–
Sweden	1	–	–	100	–	–	–	–	–	–	–

Table 6
Carcinoma of the vagina: patients treated in 1996–98. Distribution of patients (%) by country and treatment (Stage I), $n = 60$

Country	Number of patients	First line of treatment (%)									
		None	Surgery alone	RT alone	Radio-surgery	Neoadj CT	Surg + adj RT	Surg + adj CT	CT + RT	CT alone	Other non-standard
All	60	2	27	35	2	–	25	2	3	–	5
Canada	1	–	100	–	–	–	–	–	–	–	–
USA	9	–	56	33	–	–	–	–	11	–	–
Japan	9	–	22	11	–	–	56	11	–	–	–
Korea	1	–	–	–	–	–	100	–	–	–	–
Thailand	2	50	–	50	–	–	–	–	–	–	–
Austria	5	–	40	60	–	–	–	–	–	–	–
Croatia	5	–	–	80	–	–	–	–	20	–	–
Czech Republic	1	–	–	100	–	–	–	–	–	–	–
France	1	–	–	100	–	–	–	–	–	–	–
Germany	6	–	33	17	–	–	50	–	–	–	–
Portugal	1	–	–	–	–	–	100	–	–	–	–
Slovenia	1	–	–	100	–	–	–	–	–	–	–
Spain	2	–	100	–	–	–	–	–	–	–	–
Sweden	11	–	9	45	–	–	36	–	–	–	9
Ukraine	2	–	50	–	50	–	–	–	–	–	–
Australia	3	–	–	–	–	–	33	–	–	–	67

Table 7
Carcinoma of the vagina: patients treated in 1996–98. Distribution of patients (%) by country and treatment (Stage II), $n = 85$

Country	Number of patients	First line of treatment (%)									
		None	Surgery alone	RT alone	Radio-surgery	Neoadj CT	Surg + adj RT	Surg + adj CT	CT + RT	CT alone	Other non-standard
All	85	8	4	53	2	2	11	1	11	1	7
South Africa	2	–	–	100	–	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	100	–	–	–	–
Chile	1	100	–	–	–	–	–	–	–	–	–
USA	12	8	8	67	–	–	–	–	–	8	8
China	2	–	–	50	–	–	50	–	–	–	–
India	5	–	20	20	–	–	20	–	40	–	–
Japan	4	–	–	–	–	25	–	–	50	–	25
Thailand	6	33	–	67	–	–	–	–	–	–	–
Austria	5	–	–	60	20	–	–	20	–	–	–
Croatia	7	–	–	71	–	–	–	–	29	–	–
Czech Republic	6	–	–	50	–	–	–	–	50	–	–
Finland	2	–	–	–	50	–	50	–	–	–	–
France	7	–	–	86	–	–	14	–	–	–	–
Germany	2	50	–	50	–	–	–	–	–	–	–
Slovenia	2	–	–	50	–	–	50	–	–	–	–
Spain	7	–	14	29	–	14	29	–	–	–	14
Sweden	7	–	–	71	–	–	–	–	–	–	29
Ukraine	6	33	–	50	–	–	17	–	–	–	–
Australia	1	–	–	–	–	–	–	–	–	–	100

Table 8
Carcinoma of the vagina: patients treated in 1996–98. Distribution of patients (%) by country and treatment (Stage III), $n = 63$

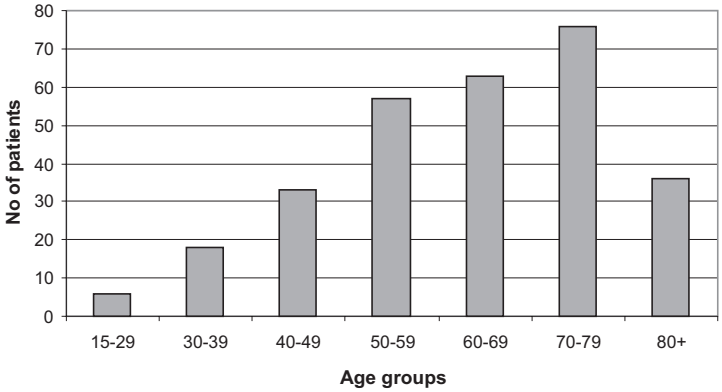
Country	Number of patients	First line of treatment (%)									
		None	Surgery alone	RT alone	Radio-surgery	Neoadj CT	Surg + adj RT	Surg + adj CT	CT + RT	CT alone	Other non-standard
All	63	2	3	63	2	2	5	2	17	2	3
South Africa	1	–	–	100	–	–	–	–	–	–	–
Canada	1	–	–	100	–	–	–	–	–	–	–
Chile	3	–	–	33	–	–	–	–	67	–	–
USA	8	–	–	25	–	13	13	–	38	–	13
China	1	–	–	100	–	–	–	–	–	–	–
India	10	–	–	80	–	–	–	–	20	–	–
Japan	1	–	–	–	–	–	–	100	–	–	–
Thailand	4	–	25	75	–	–	–	–	–	–	–
Austria	3	33	–	33	33	–	–	–	–	–	–
Croatia	5	–	–	100	–	–	–	–	–	–	–
Czech Republic	4	–	–	75	–	–	–	–	25	–	–
Finland	1	–	–	100	–	–	–	–	–	–	–
France	1	–	–	100	–	–	–	–	–	–	–
Germany	3	–	33	33	–	–	33	–	–	–	–
Slovenia	3	–	–	100	–	–	–	–	–	–	–
Spain	3	–	–	–	–	–	33	–	67	–	–
Sweden	8	–	–	75	–	–	–	–	–	13	13
Ukraine	1	–	–	100	–	–	–	–	–	–	–
Australia	2	–	–	50	–	–	–	–	50	–	–

Table 9
Carcinoma of the vagina: patients treated in 1996–98. Distribution of patients (%) by country and treatment (Stage IV), $n = 46$

Country	Number of patients	First line of treatment (%)									
		None	Surgery alone	RT alone	Radio-surgery	Neoadj CT	Surg + adj RT	Surg + adj CT	CT + RT	CT alone	Other non-standard
All	46	24	2	33	4	2	11	–	13	9	2
South Africa	1	–	–	100	–	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	100	–	–	–	–
USA	5	–	20	–	–	–	40	–	40	–	–
China	1	100	–	–	–	–	–	–	–	–	–
India	1	–	–	100	–	–	–	–	–	–	–
Japan	1	–	–	–	–	–	–	–	–	100	–
Korea	1	–	–	–	–	100	–	–	–	–	–
Thailand	8	38	–	38	–	–	13	–	13	–	–
Austria	3	–	–	33	–	–	–	–	33	33	–
Croatia	3	–	–	67	–	–	–	–	33	–	–
Czech Republic	3	33	–	33	–	–	–	–	–	33	–
Germany	3	–	–	33	33	–	–	–	33	–	–
Portugal	2	–	–	50	–	–	50	–	–	–	–
Spain	1	100	–	–	–	–	–	–	–	–	–
Sweden	6	–	–	67	–	–	–	–	–	17	17
Ukraine	6	83	–	–	17	–	–	–	–	–	–

Table 10
Carcinoma of the vagina: patients treated in 1996–98. Review of the 5-year survival rates reported in volumes 22–25

Vol.	Year	Patients (*n*)	Survival (%)	Vol.	Year	Patients (*n*)	Survival (%)
15	1959–63	1421	34.1	21	1982–86	764	41.4
16	1964–68	1075	33.5	22	1987–89	531	46.8
17	1969–72	576	37.3	23	1990–92	268	51.2
18	1973–75	541	37.5	24	1993–95	209	50.2
19	1976–78	641	34.8	**25**	**1996–98**	**235**	**46.4**
20	1979–81	547	38.6	**Total**		**6808**	



Age group	Patients (*n*)	Percentage (%)
15–29	6	2.1
30–39	18	6.2
40–49	33	11.4
50–59	57	19.7
60–69	63	21.8
70–79	76	26.3
80+	36	12.5
Total	253	100.0

Fig. 1. Carcinoma of the vagina: patients treated in 1996–98. Distribution by age groups.

Table 11
Carcinoma of the vagina: patients treated in 1996–98. Stage distribution by histologic type

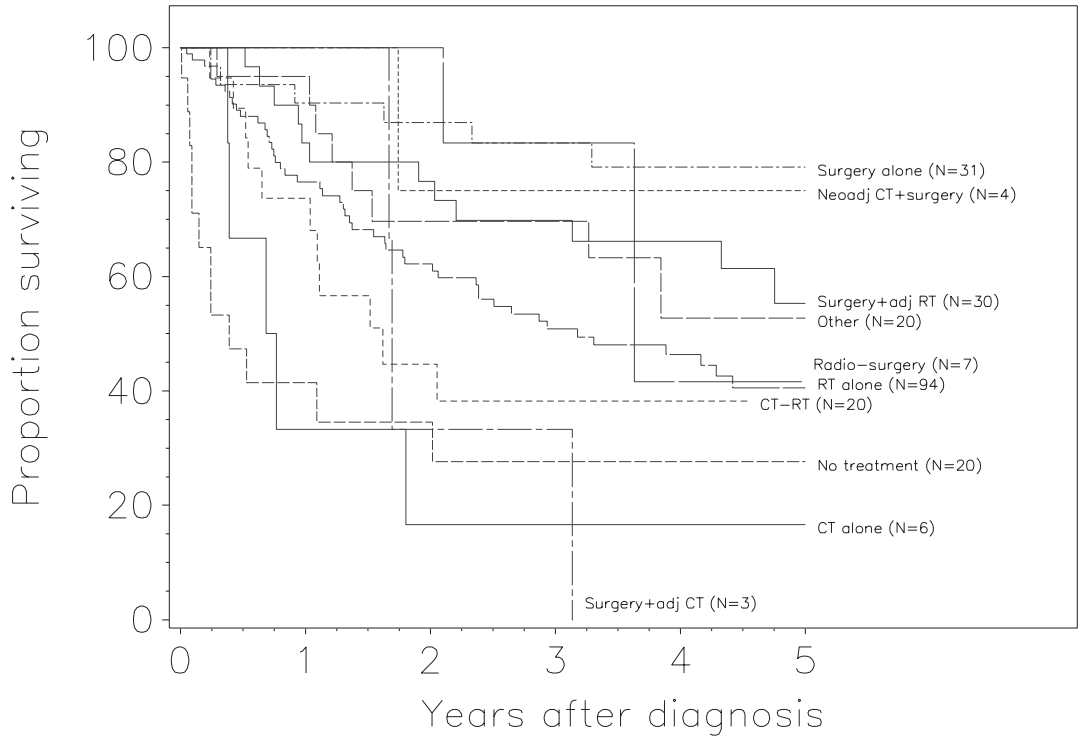
Histology	Missing		0		I		II		III		IVa		IVb		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
No biopsy	0	–	0	–	0	–	2	*66.7*	1	*33.3*	0	–	0	–	3	*100*
Epidermoid	8	*4.0*	13	*6.4*	44	*21.8*	62	*30.7*	47	*23.3*	19	*9.4*	9	*4.5*	202	*100*
Adenocarcinoma	0	–	2	*8.7*	8	*34.8*	5	*21.7*	1	*4.3*	4	*17.4*	3	*13.0*	23	*100*
Columnar	0	–	0	–	0	–	0	–	3	*100.0*	0	–	0	–	3	*100*
Endometrioid	0	–	0	–	3	*33.3*	4	*44.4*	1	*11.1*	1	*11.1*	0	–	9	*100*
Clear cell	1	*11.1*	0	–	0	–	3	*33.3*	1	*11.1*	4	*44.4*	0	–	9	*100*
Melanoma	1	*12.5*	0	–	1	*12.5*	2	*25.0*	3	*37.5*	1	*12.5*	0	–	8	*100*
Other	2	*6.3*	8	*25.0*	4	*12.5*	7	*21.9*	6	*18.8*	4	*12.5*	1	*3.1*	32	*100*
Total	12	*4.2*	23	*8.0*	60	*20.8*	85	*29.4*	63	*21.8*	33	*11.4*	13	*4.5*	289	*100*

Table 12
Carcinoma of the vagina: patients treated in 1996–98. Mode of treatment by stage

Treatment	Missing		0		I		II		III		IVa		IVb		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
No treatment	3	*11.5*	4	*15.4*	1	*3.8*	6	*23.1*	1	*3.8*	8	*30.8*	3	*11.5*	26	*100*
Surgery alone	1	*2.9*	11	*32.4*	16	*47.1*	3	*8.8*	2	*5.9*	1	*2.9*	0	–	34	*100*
RT alone	2	*1.6*	1	*0.8*	21	*16.9*	45	*36.3*	40	*32.3*	11	*8.9*	4	*3.2*	124	*100*
Radio-surgery	2	*25.0*	0	–	1	*12.5*	2	*25.0*	1	*12.5*	2	*25.0*	0	–	8	*100*
Neoadjuvant CT + surgery	0	–	1	*20.0*	0	–	2	*40.0*	1	*20.0*	1	*20.0*	0	–	5	*100*
Surgery + adjuvant RT	2	*5.9*	0	–	15	*44.1*	9	*26.5*	3	*8.8*	5	*14.7*	0	–	34	*100*
Surgery + adjuvant CT	0	–	0	–	1	*33.3*	1	*33.3*	1	*33.3*	0	–	0	–	3	*100*
Chemo-Radiotherapy	0	–	0	–	2	*7.1*	9	*32.1*	11	*39.3*	2	*7.1*	4	*14.3*	28	*100*
CT alone	0	–	0	–	0	–	1	*16.7*	1	*16.7*	3	*50.0*	1	*16.7*	6	*100*
Other	2	*10.0*	6	*30.0*	3	*15.0*	6	*30.0*	2	*10.0*	0	–	1	*5.0*	20	*100*
Total	12	*4.2*	23	*8.0*	60	*20.8*	85	*29.4*	63	*21.8*	33	*11.4*	13	*4.5*	289	*100*

Table 13
Carcinoma of the vagina: patients treated in 1996–98. Response to treatment by stage

	All	Missing	0	I	II	III	IVa	IVb
Missing	119	10	19	20	27	18	18	7
Complete response	91	1	4	23	33	25	5	0
Partial response	21	0	0	3	7	8	2	1
Stable disease	23	1	0	6	4	6	4	2
Progressive disease	18	0	0	2	6	6	3	1
Not assessable	17	0	0	6	8	0	1	2



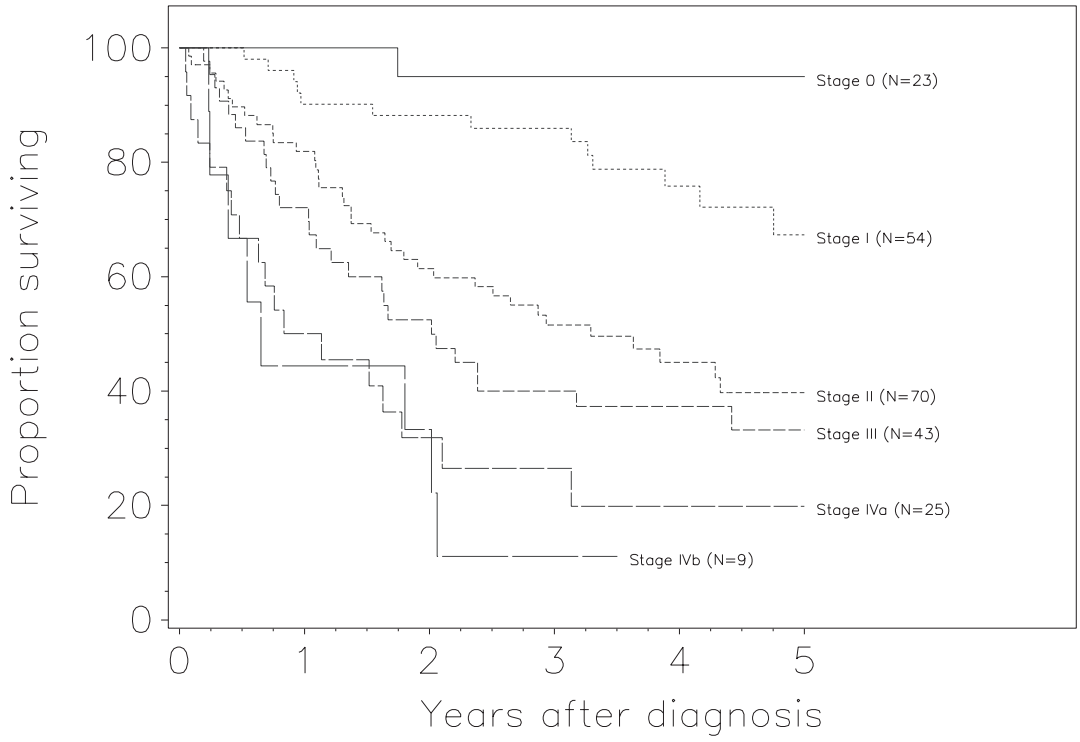
Treatment	Patients (*n*)	Mean age (yr)	Overall survival (%) at					Hazards ratio[a] (95%CI)
			1 year	2 years	3 years	4 years	5 years	
No treatment	20	64.3	44.4	37.0	27.8	27.8	27.8	3.0 (0.8–10.6)
Surgery alone	31	61.1	90.3	86.9	83.2	78.3	78.3	Reference
RT alone	94	68.1	76.7	62.3	50.9	46.4	39.9	1.2 (0.4–3.2)
Radio-surgery	7	63.7	100.0	100.0	81.8	54.5	–	0.4 (0.1–2.6)
Neoadj CT + surgery	4	51.0	100.0	75.0	75.0	75.0	75.0	0.6 (0.1–5.5)
Surgery + Adj RT	30	57.7	83.3	76.7	69.7	65.6	55.1	0.7 (0.2–2.2)
Surgery + Adj CT	3	51.0	100.0	33.3	33.3	–	–	3.2 (0.6–17.8)
CT–RT	20	61.0	73.7	44.2	37.9	37.9	–	1.5 (0.5–4.6)
CT alone	6	53.2	33.3	16.7	16.7	16.7	16.7	4.2 (1.0–18.1)
Other	20	64.3	95.0	69.3	69.3	53.0	53.0	0.9 (0.3–2.9)

[a]Hazards ratio and 95% Confidence Intervals obtained from a Cox model adjusted for age, stage and country.

Fig. 2. Carcinoma of the vagina: patients treated in 1996–98. Survival by mode of treatment, $n = 235$.

Table 14
Carcinoma of the vagina: patients treated in 1996–98. Relapses by stage

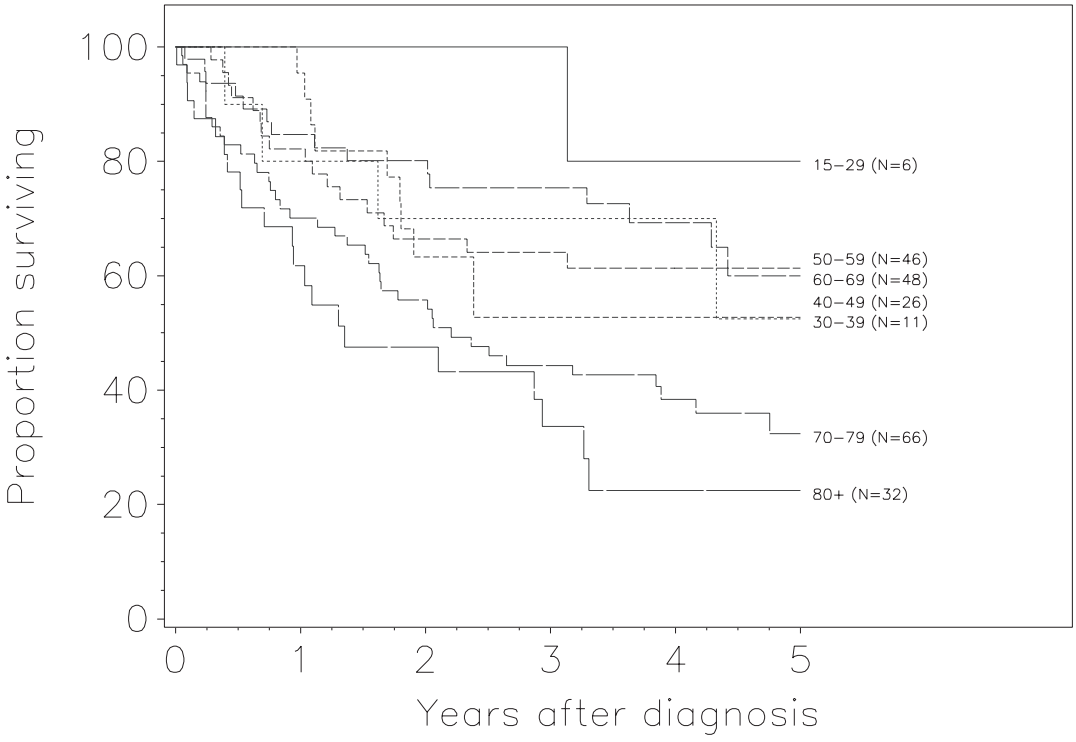
Site of relapse	All	Missing	0	I	II	III	IVa	IVb
Local (regional)	16	0	1	5	6	3	1	0
Metastatic	7	0	0	1	2	3	1	0
Local and metastatic	5	0	0	0	3	2	0	0
Missing site	84	1	3	20	29	25	5	1
Total	112	1	4	26	40	33	7	1



Stage	Patients (*n*)	Mean age (yr)	Overall survival (%) at					Hazards ratio[a] (95%CI)
			1 year	2 years	3 years	4 years	5 years	
0	23	57.3	100.0	95.0	95.0	95.0	95.0	Reference
I	54	64.2	90.5	88.4	86.2	75.2	66.9	4.6 (0.6–35.6)
II	70	63.9	82.1	61.6	51.4	45.1	38.5	12.3 (1.7–91.3)
III	43	62.6	71.8	52.3	39.8	37.1	33.4	20.7 (2.8–154.4)
IVa	25	64.8	50.0	31.8	26.5	18.9	18.9	36.8 (4.7–288.9)
IVb	9	68.9	44.4	33.3	11.1	–	–	26.8 (3.1–231.4)

[a]Hazards ratio and 95% Confidence Intervals obtained from a Cox model adjusted for age, stage and country.

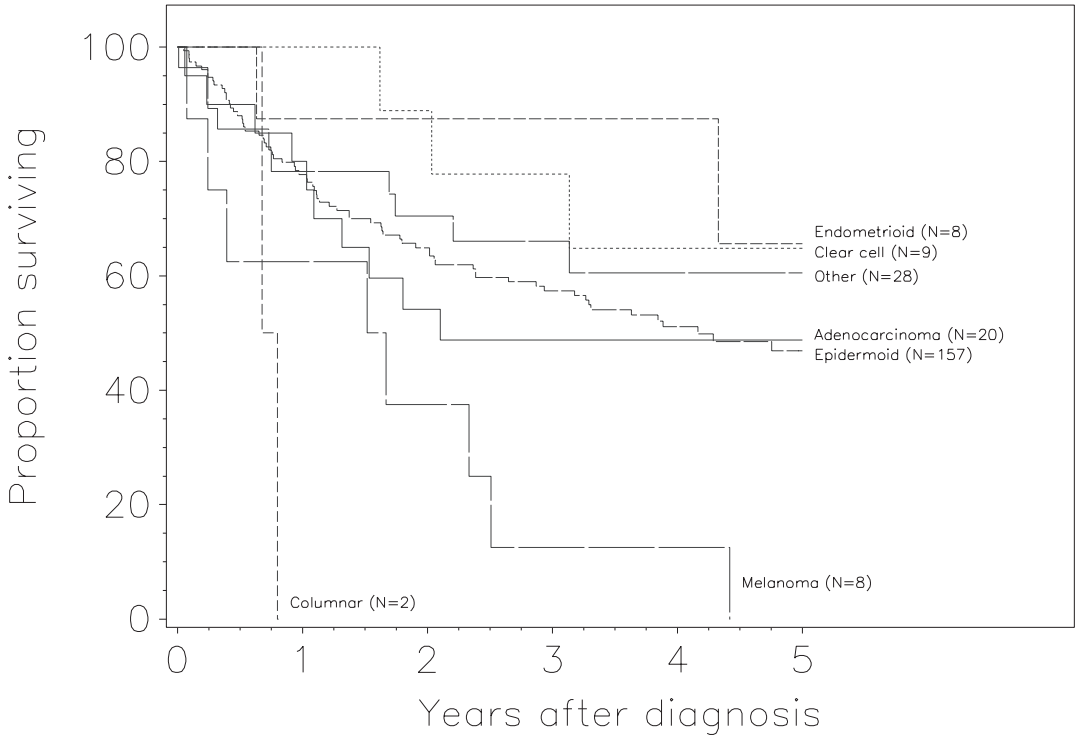
Fig. 3. Carcinoma of the vagina: patients treated in 1996–98. Survival by FIGO stage, $n = 224$.



Age group	Patients (*n*)	Mean age (yr)	Overall survival (%) at					Hazards ratio[a] (95%CI)
			1 year	2 years	3 years	4 years	5 years	
15–29	6	23.0	100.0	100.0	100.0	75.0	75.0	0.3 (0.0–2.4)
30–39	11	35.8	81.0	70.8	70.8	70.8	50.6	1.0 (0.3–3.9)
40–49	26	45.8	95.8	63.1	53.0	53.0	53.0	1.2 (0.5–2.6)
50–59	46	54.5	82.4	66.4	63.8	60.7	60.7	Reference
60–69	48	65.2	84.8	80.1	75.3	69.3	59.4	1.0 (0.5–2.1)
70–79	66	74.1	70.5	56.1	44.7	38.9	32.9	2.6 (1.4–4.8)
80+	32	84.2	61.3	46.4	32.5	20.7	20.7	3.1 (1.5–6.4)

[a]Hazards ratio and 95% Confidence Intervals obtained from a Cox model adjusted for age, stage and country.

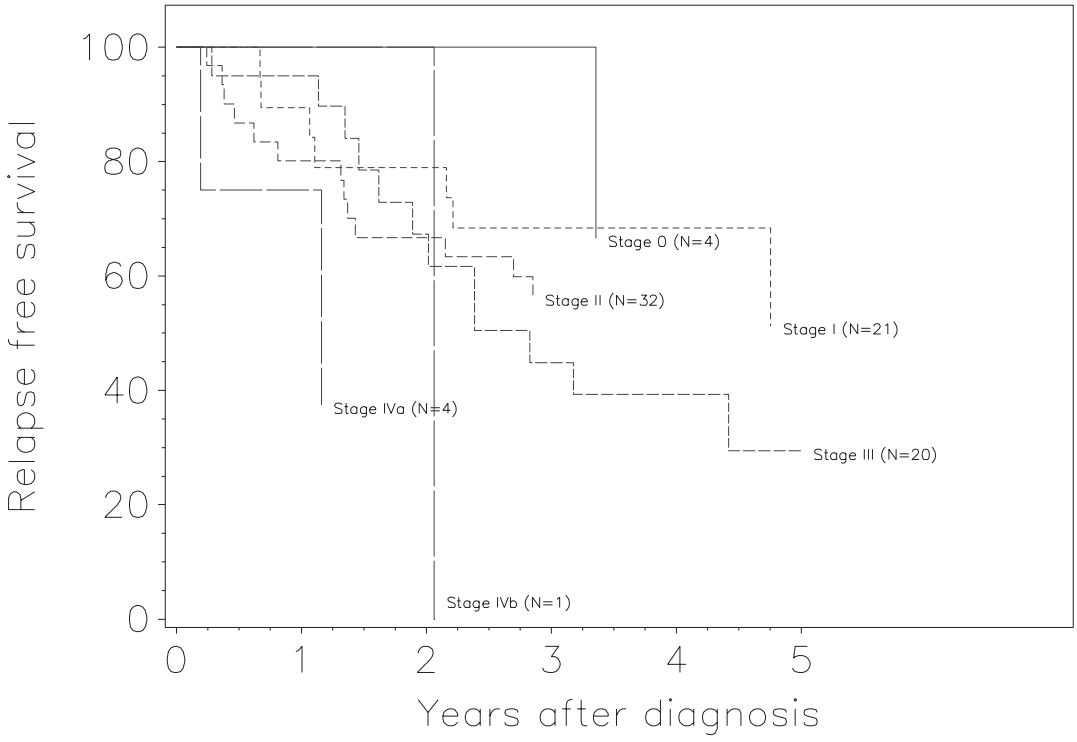
Fig. 4. Carcinoma of the vagina: patients treated in 1996–98. Survival by age groups, $n = 235$.



Histotype	Patients (*n*)	Mean age (yr)	Overall survival (%) at					Hazards ratio[a] (95%CI)
			1 year	2 years	3 years	4 years	5 years	
Epidermoid	157	66.2	78.1	65.1	57.5	51.0	46.7	Reference
Adenocarcinoma	20	65.2	80.0	54.2	48.5	48.5	48.5	1.1 (0.4–2.5)
Columnar	2	64.5	–	–	–	–	–	5.5 (1.0–30.0)
Endometrioid	8	48.9	87.5	87.5	87.5	87.5	62.5	0.1 (0.0–1.4)
Clear cell	9	45.6	100.0	88.9	77.0	61.6	61.6	0.5 (0.1–2.1)
Melanoma	8	62.5	62.5	37.5	12.5	12.5	–	2.7 (1.1–6.3)
Other	28	57.0	77.8	69.8	65.1	58.9	58.9	0.8 (0.4–1.7)

[a]Hazards ratio and 95% Confidence Intervals obtained from a Cox model adjusted for age, stage and country.

Fig. 5. Carcinoma of the vagina: patients treated in 1996–98. Survival by histology, $n = 232$.



Stage	Patients (*n*)	Mean age (yr)	Relapse-free survival (%) at					Hazards ratio[a] (95%CI)
			1 year	2 years	3 years	4 years	5 years	
0	4	59.0	100.0	100.0	100.0	–	–	0.3 (0.0–3.1)
I	21	65.0	90.0	79.4	68.5	68.5	57.0	Reference
II	32	60.4	80.6	67.2	56.6	56.6	56.6	1.5 (0.5–4.7)
III	20	65.6	94.9	67.8	45.2	39.2	31.3	1.9 (0.6–5.5)
IVa	4	59.3	71.4	35.7	35.7	35.7	35.7	9.7 (1.5–61.8)
IVb	1	71.0	100.0	100.0	–	–	–	3.1 (0.2–47.7)

[a]Hazards ratio and 95% Confidence Intervals obtained from a Cox model adjusted for age, stage and country.

Fig. 6. Carcinoma of the vagina: patients treated in 1996–98. Relapse-free survival by FIGO stage, $n = 82$.

Table 15
Carcinoma of the vagina: patients treated in 1996–98. Multivariate analysis

Strata	Hazards ratios (95% CI)[a]	
	Stage I	Stage II
Age		
Aged <60	Reference	Reference
Aged 60+	1.54 (0.33–7.22)	4.62 (1.56–13.7)
Treatment		
None	–	0.71 (0.03–16.8)
Surgery alone	Reference	Reference
Surgery + RT	1.92 (0.25–14.9)	1.44 (0.13–15.6)
RT alone	1.79 (0.29–11.1)	2.73 (0.31–23.9)
Other	3.90 (0.43–35.1)	7.34 (0.72–73.3)

[a]From Cox proportional hazard regression model, also adjusted for country.