SURGICAL TREATMENT OF VULVAR CANCER : IMPACT OF TUMOR-FREE MARGIN DISTANCE ON RECURRENCE AND SURVIVAL. A MULTICENTRE COHORT ANALYSIS FROM THE FRANCOGYN STUDY GROUP

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Introduction

Vulvar cancer:

- Rare disease: 1% of women cancers and 3 to 5% of all gynaecological cancers
- Incidence: increases over the last years in the United States and in Europe^{1,2}
- **Most important factor for locoregional control is tumor-free margin**
- **Recommendation: tumor removed with at least an 8 mm tumor-free margin: often difficult to achieve**
- Re-excision is recommended to prevent local recurrence:in many cases, it is not possible
- Aim of the study: to **evaluate the impact of tumor-free margin distance on recurrence and survival in vulvar cancer**

Material and Methods

- A retrospective multicenter study: from 2005 to 2016
- 112 patients surgically treated for a vulvar squamous cell cancer
- Three groups according to the smallest lateral tumor-free margin distance: group 1: < 3 mm, group 2: ≥ 3 mm to < 8 mm and group 3: ≥ 8 mm.
- In case of close margin, the criteria for re-excision versus radiotherapy: the technical feasibility
- **Overall, disease-free and metastasis free survivals: analyzed according to tumor-free margin distance**

Results

- **84.8%** of patients (n=95) had **tumor-free margin < 8mm**
- **Re-excision: 12.8%** (n=6) in group 1 and **8.3%** (n=4) in group 2 (**p=0.51**)
- **Recurrence: 26.8%** patients (n=30)
- **Recurrence rate** according to tumor-free margin distance: **no difference between groups**
- **5-years overall survival**, as well as disease-free and metastasis-free survivals: **no difference between groups**
- **Subgroup analysis** in patients with a tumor-free margin < 8 mm, histological lesions observed closest to the edge
 - **Groupe 1: invasive or in situ carcinoma lesions**
 - **Groupe 2: VIN**
- **After re-excision: no recurrence in groupe 1 and 50% recurrence in groupe 2**

General features of tumor and per group of resection margin	n=112	group 1 < 3mm (n=47)	group 2 ≥ 3 mm et < 8 mm (n=48)	group 3 ≥ 8 mm (n=17)	p
Age (years)	70.2 (29-96)	69.9 (38-88)	70.2 (29-96)	70.9 (45-84)	1
Margin distance (median, mm)	3 (1-5)	0 (0-2.5)	4 (3-7)	10 (8-20)	<0.05
HGO stage[]					0.78
I	54 (48.2%)	18 (38.3%)	27 (56.2%)	9 (52.9%)	
Ia	7 (6.2%)	5 (27.8%)	1 (3.7%)	1 (11.1%)	
Ib	43 (38.4%)	11 (61.1%)	25 (92.6%)	7 (77.8%)	
unspecified	4 (3.6%)	2 (11.1%)	1 (3.7%)	1 (11.1%)	
II	12 (10.7%)	3 (6.4%)	8 (16.7%)	1 (5.9%)	
III	36 (32.1%)	19 (40.4%)	10 (20.8%)	7 (41.2%)	
IIIa	16 (14.3%)	7 (36.8%)	4 (40%)	5 (71.4%)	
IIIb	10 (8.3%)	4 (21.1%)	5 (50%)	1 (14.3%)	
IIIc	7 (6.2%)	5 (26.3%)	1 (10%)	1 (14.3%)	
unspecified	3 (2.7%)	3 (15.8%)	0	0	
IV	4 (3.6%)	1 (2.1%)	3 (6.2%)	0	
IVa	1 (0.9%)	1 (100%)	0	0	
IVb	1 (0.9%)	0	1 (33.3%)	0	
unspecified	2 (1.8%)	0	2 (66.6%)	0	
unknown	6 (12.8%)	6 (12.8%)	0	0	
Tumor size (cm) []					0.53
Mean	3.3 (0.2-11)	3.2 (0.3-11)	3.2 (0.2-8.4)	3.8 (0.6-8.2)	
≤ 4 cm	79 (70.5%)	35 (74.5%)	34 (70.8%)	10 (58.8%)	
> 4 cm	27 (24.1%)	8 (17%)	13 (27.1%)	6 (35.3%)	
Stromal invasion (mm) []					<0.05
Median	7 (0-40)	7 (0-40)	5 (0-7)	6.5 (2-15)	
≤ 5 mm	49 (43.7%)	21 (44.7%)	26 (54.2%)	2 (11.8%)	
> 5 mm	23 (20.5%)	6 (12.8%)	7 (14.6%)	10 (58.8%)	
Lymphovascular space invasion []	32 (28.6%)	14 (29.8%)	12 (25%)	6 (35.3%)	0.61
Histologic grade					0.96
1	57 (50.9%)	22 (46.8%)	26 (54.2%)	9 (52.9%)	
2	29 (25.9%)	13 (27.6%)	13 (27.1%)	3 (17.6%)	
3	7 (6.2%)	3 (6.4%)	3 (6.2%)	1 (5.9%)	
Type of surgery					
Total vulvectomy					
Radical	29 (96.7%)	13 (27.6%)	13 (27.1%)	3 (17.6%)	0.7
Superficial	1 (3.3%)	0	1 (2.1%)	0	0.51
Partial vulvectomy					
Radical	61 (6.8%)	24 (51.1%)	26 (54.2%)	11 (64.7%)	0.62
Superficial	17 (15.2%)	8 (17.0%)	7 (14.6%)	2 (11.8%)	0.9
Lymph node staging					
Sentinel node procedure	60 (53.6%)	18 (38.3%)	29 (60.4%)	13 (76.5%)	<0.05
positive lymph node(s)	13 (11.6%)	6 (33.3%)	5 (17.2%)	2 (15.4%)	0.89
Inguinofemoral lymphadenectomy	55 (49.1%)	25 (53.2%)	20 (41.7%)	10 (58.8%)	0.33
positive lymph node(s)	28 (25%)	14 (56%)	8 (40%)	6 (60%)	0.32
Adjuvant radiotherapy []	35 (31.2%)	19 (40.4%)	13 (27.1%)	7 (41.2%)	0.2
Re-excision []	12 (10.7%)	6 (12.8%)	4 (8.3%)	2 (11.8%)	0.51
Follow-up (median, months)	25.5 (0-137)	18 (0-99)	13.5 (0-137)	18 (1-71)	0.57
Recurrence []	30 (26.8%)	14 (29.8%)	10 (20.8%)	6 (35.3%)	0.48
Local	26 (23.2%)	11 (78.6%)	9 (90%)	6 (100%)	0.43
Regional	8 (7.1%)	4 (28.6%)	3 (30%)	1 (16.7%)	0.87
Distant	6 (5.3%)	3 (21.4%)	3 (30%)	0	0.85
Pelvic lymph nodes	3 (2.7%)	1 (33.3%)	2 (66.7%)	0	0.58
Centro-pelvic area	4 (3.6%)	2 (66.7%)	2 (66.7%)	0	0.72
Bone	1 (0.9%)	1 (33.3%)	0	0	0.57
Lung	4 (3.6%)	3 (100%)	1 (33.3%)	0	0.49
Liver	1 (0.9%)	1 (33.3%)	0	0	0.57

Data: Mean (minimum - maximum), number (%), [] data available on only 106 cases, [] data available on only 85 cases, [] data available on only 110 cases, [] data available on only 110 cases, [] data available on only 99 cases, [] data available on only 109 cases

Conclusion

- **No significant impact of tumor-free margin distance on recurrence and survival in vulvar cancer**
- Strong benefit of re-excision when tumor-free margins are positive or very close (< 3 mm): cases in which invasive or in situ lesions are often present closest to the edge of the specimen