Impact of pelvic lymph nodes metastasis on recurrence in patients with early cervical cancer

R. Montero Macías ^{1,2}, V. Balaya ^{1,2}, C. Ngô ^{1,2}, M. Deloménie ^{1,2},
H. Bonsang-Kitzis ^{1,2}, M. Koual ^{1,2}, H. Nguyen-Xuan ^{1,2}, H. Khider ^{1,2},
M. Gomes David ^{1,2}, A. Bresset ^{1,2}, J. De Jesus ^{1,2}, M. Osdoit ^{1,2}, AS. Bats ^{1,2}, F. Lécuru ^{1,2}.

1. Gynecologic and Breast Oncologic Surgery Department, Georges Pompidou European Hospital, Paris, France
2. Paris University, Faculty of Medicine, Paris, France
*Corresponding author : rosaomsi@hotmail.com

Introduction

- Lymph node involvement is considered as the main prognostic factor in early-stage cervical cancer.
- Other prognostic factors for recurrence such as tumour size, maximum stromal invasion, and presence or absence of lymphovascular space involvement (LVSI) have also been suggested.
- Depth of invasion parametrial involvement, lymphatic-vascular space invasion, tumor grade and size of primary tumor were shown to be associated with lymph node involvement.
- We aimed to determine the risk factors for lymph node involvement and for recurrence in patients with early-stage cervical cancer.

Material and Methods

- We retrospectively analysed the data from 85 patients with early cervical cancer treated at the Georges Pompidou’s European Hospital in Paris between January 2004 and June 2018.
- Inclusion criteria: patients with cervical cancer stage IA1- IIA.
- Exclusion criteria: missing or insufficient follow-up data (<6 months), no lymph node staging, neoadjuvant chemoradiotherapy.

Results

Association between patients and tumor characteristics and recurrences.

Risk factor	Patients	Recurrences	p
Age			
<45	35	6	0,5 (NS)
>45	50	6	
Lymph node			
Positive	14	3	0,4 (NS)
Negative	71	9	
Size of the metastatic deposits within pelvic nodes			
micrometastases and ITC	5	1	1 (NS)
macrometastases	9	2	
Tumor size			
<20 mm	57	3	0,02
≥20 mm	28	9	
FIGO Stage			
IA1-2	11	0	0,3(NS)
≥IB1	74	12	
Lymphovascular space involvement			
None	47	6	1 (NS)
Yes	32	4	
Histology			
Squamous cell carcinoma	61	7	0,3 (NS)
Adenocarcinoma	23	5	
Preoperative brachytherapy			
No	75	10	0,6 (NS)
Yes	10	2	

Association between patients and tumor characteristics and pelvic nodes status.

Risk factor	Patients	Positive pelvic nodes	p
Age			
<45	35	5	0,6 (NS)
>45	50	9	
B.M.I.			
>25Kg/m ²	53	8	0,6 (NS)
<25Kg/m ²	32	6	
Tumor size			
<20 mm	57	9	1 (NS)
≥20 mm	28	5	
FIGO Stage			
IA1-2	11	0	0,2 (NS)
≥IB1	74	14	
Lymphovascular space involvement			
None	47	4	0,1 (NS)
Yes	32	7

Conclusion

- LVSI tended to be associated with positive lymph nodes.
- Tumor size was associated with an increased risk of recurrence