



THE PHILOSOPHY OF SENTINEL LYMPH NODE IN THE MANAGEMENT OF EARLY STAGE CERVICAL CANCER.FEASIBLE OR NOT?



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Background and aims: Important prognostic factors for parametrial invasion in early stage Cervical Cancer (CaCx) include Depth of Stromal Invasion (DOI), tumour size, Pelvic Lymph Node (PLN) involvement and Lymphovascular Space Invasion (LVSI). It has been demonstrated that parametrial invasion in early stage, IA2 and small IB1 tumors, less than 10 mm DOI and negative lymph nodes is less than 0.6%. Therefore, in tumors with such characteristics, omission of radical parametrial resection and PLN excision could result in less peri/postoperative morbidity. The concept of sentinel lymph node (SLN) not only presumes, that the first draining node(s) reflects the condition of all regional nodes but also increases the accuracy of staging. Therefore, SLN biopsy may be used to triage those cases with negative SLNs towards a less radical or fertility sparing procedure. One-step or two-step protocol can be used to assess the lymph node status. When following the one-step protocol, SLN detection is performed intra-operatively, usually by Frozen Section Biopsy (FSB).

We present a single institution study developing a simple algorithm in sentinel lymph nodes (SLN) mapping, evaluating the detection rate and diagnostic accuracy between frozen section biopsy (FSB) and final histopathology (FH). Also assess SLN concept for less radical surgery in early stage cervical cancer (CaCx).

Methods: Prospective study including patients with CaCx, stage IA1-IIA1 (tumour size 0.5-3 cm). Intracervical injection of methylene blue (Figure 1) after induction of anesthesia, detection of LNs that are dyed and sent for FSB (Figure 2, 3). Bilateral pelvic lymphadenectomy and radical hysterectomy is then performed and correlated with FH.



Figure 1



Figure 2

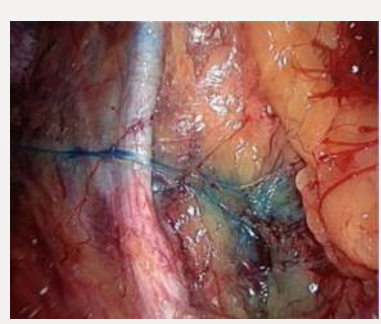


Figure 3

Results: In our study, 70 patients were eligible. Patients and tumor characteristics are shown at Table 1. At least one SLN (range 0-6) was identified in 82.4% (58/70), whereas bilateral detection was succeeded in 80% (56/70). SLNs were located at the external (53.8%) or internal iliac region (15.4%), obturator fossa (19.2%), and ventral to the hypogastric vessels (11.6%)(Figure 5) whereas 9.1% found in (unexpected) area (parametrium, Figure 4) in cases with tumour size (TS) \geq 3 cm. Frozen section was positive in 3 cases (4.2%) and the procedure was aborted. Sentinel lymph node sensitivity in detection of metastasis was 100% for TS \leq 2 cm. False negative SLN and micrometastasis was identified in only two cases (TS > 2cm). Parametrial involvement was not detected when SLNs were negative.

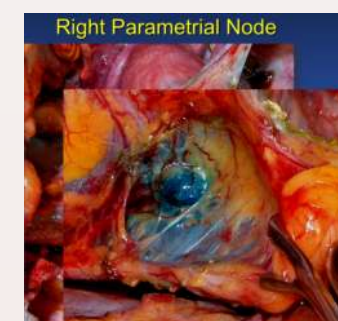


Figure 4

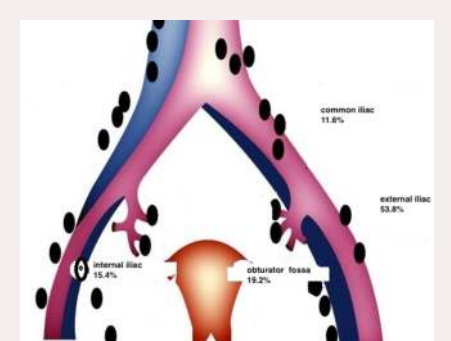


Figure 5

Conclusions: Our findings confirm the clinical significance of SLN mapping in minimizing systematic lymphadenectomy and supports less radical surgery of parametrium with greater safety. However, we still try to establish our technique as feasible and equate in early stage cervical cancer.

TABLE 1. PATIENTS AND TUMOR CHARACTERISTICS		N(%)
Age		
Median (range)		49.76 (29-72)
Tumor size		
Median (range)		2.17 (0.5-3)
Cone biopsy		
24 (32.8)		
Surgical approach		
Radical Hysterectomy		66 (94.5)
Simple Hysterectomy		1 (1.4)
Aborted Hysterectomy		3 (4.1)
Histology		
Serous carcinoma		1 (1.4)
Phantom cell		44 (62.9)
Adenocarcinoma		22 (31.6)
Neuroendocrine		0
Other (sarcomas)		3 (4.1)
Figo Stage		
IA1		3 (4.1)
IA2		1 (1.4)
IB1		60 (80.8)
IB2		3 (4.1)
IIA		3 (4.1)
follow up (months)		
Median (range)		32.7

Table 1

References

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