Pelvic lymph node dissection as part of comprehensive surgical management of early stage cervical cancer in Australia 1998 – 2016

Leon Foster[1], Stephen Robson[2]
1.Centenary Hospital for Women and Children, ACT 2. The Australian National University

Introduction:

Radial hysterectomy is the excision of the uterus along with the upper half to one third of the vagina and parametrium (uterosacral, broad, cardinal ligament and round ligaments). That, along with pelvic lymph node dissection, remains the recommended treatment for early stage cervical cancer (IA1 with LVSI and IB1) where fertility is no longer desired. (1) Pelvic node sampling, sentinel node biopsy, and CT/PET delineate extent of disease and affect treatment plans in nearly half of patients. We aimed to identify temporal changes in the use of nodal dissection during radical hysterectomy for known malignant disease.

Method:

Comprehensive national data were analysed regarding incidence rates of radical hysterectomy for cervical cancer with and without nodal dissection between 1998 - 2016. The proportion of cases where lymph node dissection was undertaken, and the rate of sentinel lymph node dissection were obtained.

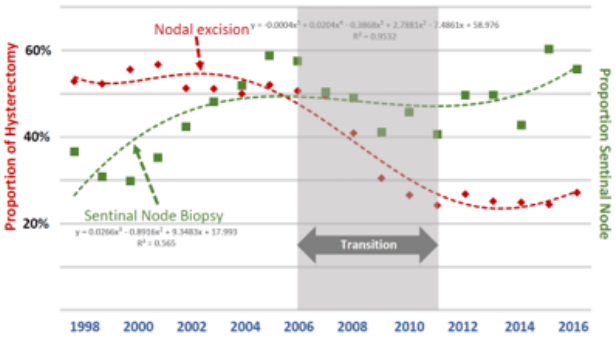

Figure 1. Proportion (as a percentage) of radical hysterectomy for invasive cervical cancer involving associated radical pelvic lymph node dissection in Australia 1998 to 2016. Plotted against the proportion of all hysterectomies associated with a nodal biopsy.

Results:

There was no significant change in rate of radical nodal dissection between 1997 and 2006 (aR2 = 0.25, p=0.08), a clear transition period from 2006 to 2011 with a significant fall (aR2 = 0.94,p<0.005), then no further change in the rate between 2011 and 2016 (aR2= -0.13,p=0.56). There was no significant change in the rate of sentinel nodes biopsy during the period of change of practice. The correlation between the increase in sentinel node biopsy and the decrease in radical nodal excision was low (Pearson correlation coefficient = -0.31)

Discussion:

Pelvic lymph node dissection remains the standard of care in radical hysterectomy for early stage cervical cancer in countries with an enhanced / maximal health care system. Continuation of radical hysterectomy after frozen histological confirmation of nodal metastases is debateable. Termination of the procedure or continuation if the nodal excision can be completed are typical approaches. Completion of a radical hysterectomy without nodal excision is not standard practice and is unlikely to explain the difference identified here. In Australian there was a significant shift to a decreased rate of nodal excision between 2006 – 2011. After which the rate of excision has remained stable. This was not due to an increase in the rate of sentinel node biopsy and the cause of the shift is yet to be determined. Do you know the answer?

Contact: leon.foster@act.gov.au

References:

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