

Comments on Kraft O. et al. Detection of sentinel lymph nodes in cervical cancer. A comparison of two protocols

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The sentinel node concept in cervical cancer is one which has been developing over seven years, and has been of great interest to us in tailoring surgery for patients suffering from this disease [1, 2]. In determining the prognosis in such cases we use nodal status as one of the main indicators in deciding the extent of surgery and importantly the postoperative treatment requirements [3]. The incidence of metastatic disease in lymph nodes is up to 16% in FIGO I stage and up to 31% in FIGO II stage. Presently in the majority of clinical centres, radical pelvic or para-aortic lymphadenectomy is performed completely and bilaterally using laparoscopy or abdominal surgery. This results in the removal of both diseased and unchanged nodes. Such radical surgery does not benefit the patients. The presence of metastatic disease in lymph nodes reduces 5 year survival rates by up to 20%. The overall concept of sentinel node (SN) detection is to identify as accurately as possible the primary nodes, whether are diseased or not. In this way we can eliminate the need for unnecessary surgery and thus reduce mortality and morbidity rates.

We have read with interest the study by Kraft O. et al. [4] "Detection of sentinel lymph nodes in cervical cancer. A compar-

ison of two protocols" [4]. They compared one day and two day protocols of sentinel node identification in cervical cancer patients. Three different techniques were used in SN detection. The one day protocol was applied in the case of 30 patients with the following detection rates: scintigraphy 76.7%, gamma probe 96.6% and Patent Blue dye 79.3%.

The two day protocol was applied to 24 patients with the following results: scintigraphy 91.7%, gamma probe 73.9% and Patent Blue dye 81.8%. The paper suggests that the one day protocol had a better overall detection rate of SN 100% versus 83.3% for the two day protocol. Surgery followed 1.5 to 4 hours after radiocolloid administration in the one day protocol and 14 to 20 hours in the two day protocol.

In our recent study of 100 patients any administration of radiocolloid performed more than 18 hours before expected surgery was repeated 1 to 4 hours before actual surgery [5]. The overall detection rate was 85%. We found no difference in detection rates between the protocols. This is probably due to the higher doses of technetium in our two day protocol — 70 MBq versus 40 MBq in Kraft's study. The low concordance in Kraft's study between the two protocols could be related to the timing. The ^{99m}Tc has a half-life of 6 hours. With the one day protocol only 1.5–4 hours lapsed between radiocolloid administration and intraoperative SN detection. In the two day protocol 14–20 hours lapsed. Bearing in mind the half-life of Tc-99m this may account for the detection difference.

We note from Kraft's study that three different radiocolloids (Nanocis, Nanocoll, SentiScint) were used, and Nanocis was only used in one patient in the one day protocol. The other two radiocolloids were not used in equal numbers of patients in the two protocols. Would this not make the two groups difficult to compare accurately? Likewise the varied particle size of radiocolloids could also affect comparison.

We would also be interested to know which radiocolloids were administered to which patients in each FIGO stage and how those

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patients were selected for each protocol. In Kraft's study patients were selected from FIGO groups IA1, IA2, IB1, IB2 and IIIA, IIIB. In our experience FIGO stage III would not normally be selected for this procedure because of its advanced stage. Is it possible that there was a simple error in describing the FIGO stages? We would also be interested to know the distribution and size of the tumours among the selected patients. In our study results were also related to tumour size and FIGO stage. At least one SN was found in 84% on one side and in 66% on both sides. Our overall bilateral SN rate is comparable with other studies published on cervical cancer [6]. The sentinel node detection rates according to the stages were as follows: 96.6% in IB1, 66.7% in IB2 and 62.5% in IIA with at least one SN on one side, and 86.2% in IB1, 38.9% in IB2 and 37.5% in IIA with at least one SN on both sides. Barranger et al. [7] obtained comparable results in a study of 33 patients, 23 with early stage cervical cancer (stages IA and IB1) and 10 with locally advanced cervical cancer (stages IB2, IIA and IIB). They concluded that the SN biopsy technique was less accurate in locally advanced cancer than in early stage cervical cancer. The false-negative rate was 0% in early stage disease and 20% in locally advanced disease. In our study of 100 patients the overall false-negative rate for SN procedure was 3%. In all false-negative SNs, the size of the primary cervical tumour was above 2 cm and there was an isthmus infiltration.

Another factor which can have an important effect on SN detection results is the way in which the blue dye and radiocolloid are administered. The depth and site of injection can have a marked effect. Both deep and superficial administration has been used in the past. Our previous data suggests that superficial (sub-epithelial) marker administration gives better results, and this has now become the most preferred method [8].

At the present time the SN approach in cervical cancer cannot be recommended as a standard and routine procedure as there remain too many questions as yet unanswered. However, in our experience and on the evidence so far presented, we are

satisfied a positive node detection can allow us to tailor our surgery much more accurately. Unfortunately, false negative results prevent us from attaining a 100% accurate picture of the lymph node status. Until such negative results can be correctly discounted we are continuing to use more radical surgery. We would suggest that wider studies are needed using a standardized method of detection, surgical approach and pathological analysis. This should allow us to collect definitive data from a selected group of patients. We feel that SN detection would serve best in cases of patients affected by IA2-IB1 cervical cancer where the highest detection rates and lowest false-negative rates have been achieved.

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