LYMPHATIC MAPPING AND SENTINEL LYMPHNODE BIOPSY IN BREAST CANCER PATIENTS IN CLINICAL STAGE T1-T2 NO MO

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The authors report the feasibility an accuracy of intraoperative sentinel lymphnode biopsy (SLN) in patients with operable breast cancer to test the hypothesis that the histologic characteristic of SLN predicts the histologic status of remaining lymph nodes in the axilla.

In between August 1999 and May 2000 to SLN biopsy there were 124 patients enrolled with median age of 55,2 years of age. All patients had operable breast cancer and all axillary lymphnodes were clinically negative.

A day before surgery 4 cc of Nannocol marked with Tc99 was injected subcutaneously nearby the tumor bed and an hour later the lymphoscintigraphy was performed to achieve axillary lymphnodes mapping. Then immediately prior to surgery Blue Dye Patent Blau V was injected in the same manner as the radiological marker. Then with the use of hand – held gamma probe the hotspot was defined and marked. Five to ten minutes later first cut was performed over marked hotspot. After visualization of stained lymph vassals the SLN was traced and confirmed with high dose output (using the Neoprobe) and then was harvested for histologic examination. After this all patients were submitted for regular lymphadenectomy regardless main surgery type (mastectomy or BCT).

Employing above method we were able to define SLN in 93,3%, only in 6,7% of our patients identification failed. In the group with defined SLN we found cancer cells deposits only in 20 %. And in that group remaining lymphnodes had cancer metastasis in almost 80 %. We had two cases of false negative results but still our specify rate was over 97 %.

In conclusion we think that SLN biopsy is quite safe and efficient method to evaluate axillary lymphnodes status in patients with operable early stage breast cancer. Our findings are also confirmed by other authors world wide.

HOW OFTEN SHOULD WE OBTAIN COMPLETE BLOOD COUNTS (CBC’s) FROM PATIENTS RECEIVING RADICAL RADIATION THERAPY?

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Data on factors influencing decline in peripheral blood counts during radiation treatment are sparse and no guidelines exist on the appropriate frequency of obtaining CBC’s from the patients.

Patients and methods: A series of charts from 460 consecutive patients receiving radiotherapy in 1995 and 1996 was reviewed. In the final database, the data from patients receiving definitive radiotherapy with information on baseline CBC’s and at least two results during treatment were included (183 patients, 810 results). Critical nadir values of haemoglobin (HGB), white blood cells (WBC) and platelets (PLT) requiring further tests and interventions were defined as follows: HGB<9.0 g/dL, WBC<2.000/mm3, PLT<100/mm3. For statistical analysis, logistic regression was used separately for each parameter and then the prognostic model of obtaining at least one nadir value in all tests performed in one patient was developed.

Results: Of 183 patients, at least one nadir value was observed in 17 patients (9%). Pretreatment CBC was very strong and the only predictor of nadirs - the other variables were not significant in the final model. The probability of at least one nadir during treatment was 35% if one of the following pre-treatment CBC values was noted: HGB<11.0 g/dL, WBC<5.000/mm3 or PLT<150/mm3. A very low nadir probability of 1.6% was observed in the remaining group of patients.

Conclusion: Outside clinical trials, monitoring of CBC’s in patients receiving radical radiation treatment should be performed if baseline values are below the proposed limits or other cytotoxic therapy is given.