Early detection of the regional lymph nodes' metastases by biopsy of the guard lymph nodes in melanoma patients - Our experience

KEYWORDS: Melanoma; Sentinel Lymph Node Biopsy; Diagnosis

Sentinel, or the guard lymph node is the first node on the way of the lymph drainage, from the place of the primary tumor to the regional lymph nodes. Extempore biopsy of the sentinel lymph node enables us to detect, or not, eventual metastases in the stated lymph node, before they appear, and also in other lymph nodes, which influences decision on dissection of the inspected region. Tested persons and methodology of work: From 1999 to 2000, 47 patients, operated for the skin melanomas, were completely tested and the results processed. The biopsy included radical excision of melanoma, biopsy of enlarged regional lymph nodes, biopsy of the sentinel lymph nodes in the melanoma with thickness of over 1 mm and II level of the skin involvement by Clark, and dissection of the regional lymph nodes, depending on extemporaneous finding of the tested lymph nodes. The skin melanoma localizations by regions were as follows: head and neck 1 patient (2.12%); torso 22 patients (46.80%); upper extremities 10 patients (21.27%); lower extremities 14 patients (29.78%). From total number of processed patients, 7 were with melanoma thickness up to 0.75 mm (14.9%); 12 had melanoma thickness over 1.5 mm (25.53%); and 24 patients had melanoma thickness of over 3 mm (51.06%).

Biopsy of the sentinel lymph node was performed in 12 patients (25.53%) and in 7 patients (14.89%) biopsy of enlarged lymph node was performed, while 5 patients (10.63%) had positive extemporaneous finding of the tested lymph node.

Dissection of the regional lymph nodes was performed in the patients with positive guard, or preoperatively palpable lymph nodes. In patients with negative HP finding of the lymph node (without metastases), operation was finished with radical excision of the skin malignant epithelial tumor. Biopsy of the guard lymph node is relatively new, and to some extent, sovereign method, which, with use of preoperative lymphoscintigraphy, may have an important role in disease staging, and in that way help surgeon in making decision on type of the surgical treatment.

Importance of extempore control of the sentinel lymph node in the extremities' skin melanoma

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Investigation of the role of lymph drainage and the existence of the sentinel lymph nodes found the biggest application in the extremities' skin melanoma, considering the prediction of the metastases spreading and learning of the lymph ways. Sentinel lymph node detection and the secondary deposits are of enormous importance since it enables dissection of the lymph node region on time. In that way, additional surgical interventions are avoided in a sense of postponed dissections, and it has been proven that detection of macrometastases improves survival. This method has been tested and accepted at the Surgical Department of our Institute since 1997. From 1997 to 2002 we performed 37 sentinel lymph node biopsies for skin melanoma using Metlen blue and Patent blue V for frozen section, and HER2 immunohistochemistry staining. The method of vital dye should be combined with the method of lymphoscintigraphy. The method is carried out with patent blue V and Metlen blue with which the best results are obtained. Specificity and sensitivity of this method is in a very high what justifies the use of this method as a routine in the clinical practice.