

**XXV National Congress of the "Società Polispecialistica Italiana dei Giovani Chirurghi"  
13-15 June 2013, Bari, Italy**

**PROGNOSTIC SIGNIFICANCE OF TYROSINASE EXPRESSION IN SENTINEL LYMPH NODE BIOPSY FOR ULTRA-THIN, THIN, AND THICK MELANOMAS**

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**Objective:** Investigate if the tyrosinase mRNA expression may be predictive of the outcome on ultra-thin, thin, and thick melanoma patients. In our study, we sought to correlate tyrosinase mRNA expression to the outcome in a group of 71 patients with thick, thin and ultra-thin melanomas.

**Methods:** 71 patients with melanomas underwent a SLNB (sentinel lymph node biopsy) at the "Sapienza" University of Rome. Among these, 38 patients had thin melanomas, while the other 33 patients had thick melanomas. In every patient's sample histology, immunohistochemistry and reverse transcriptase-polymerase chain reaction (RT-PCR) was completed. We then correlated tyrosinase mRNA expression to the statistical analysis of the outcome of patients.

**Results:** Positivity of histology was found in one patient (1.4%), immunohistochemistry in five patients (7%), and tyrosinase in 52/71 (73.2%). Thickness and tyrosinase positivity were predictive for disease progression ( $p < 0.05$ ). The median follow-up was 58.24 months. There were recurrences and/or deaths in both groups of patients.

**Conclusions:** Nodal metastasis in melanoma is uncommon, especially in patients with thin melanomas. In this study, histology and immunohistochemistry were found to be non predictive for the risk of nodal metastases, while instead, tyrosinase m-RNA expression appeared to play a role in highlighting those patients with a risk of disease progression. Moreover, no differences among the thin melanoma groups of patients (0.30-0.75 mm and 0.76-1.00 mm) were observed.

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**THE PROGNOSTIC VALUE OF THE NUMBER OF EXCISED LYMPH NODES IN RADICAL LYMPHADENECTOMY IN PATIENTS AFFECTED BY MELANOMA - ON BEHALF OF IMI (ITALIAN MELANOMA INTERGROUP)**

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**Objective:** The aim of this study is to assess the effect of radical lymphadenectomy on the survival of patients affected by melanoma, to identify minimum number of lymph nodes that must be excised and the patients who can benefit from this procedure.

**Methods:** This study involved 2536 patients.

**Results:** The number of lymph nodes excised during the radical lymphadenectomy influence the survival of patients with lymph node metastases above all in presence of primitive tumors micrometastases with intermediate thickness and in patients who underwent a groin lymphadenectomy. In underarm, groin and ileo-inguinal radical dissection, 12,9 and 11 lymph nodes must be excised, respectively.

**Conclusions:** The number of lymph nodes excised during the radical lymphadenectomy can be considered a positive prognostic value. Further studies are needed to confirm these data and to investigate on radical dissection of the neck.

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**SENTINEL LYMPH NODE BIOPSY FOR CUTANEOUS MELANOMA IN DAY SURGERY**

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**Objective:** The prognosis for melanoma depends primarily on primary tumor thickness and metastasis to regional lymph nodes. Several studies have demonstrated a sequential spread of lymph node metastasis. Staging with sentinel lymph node biopsy (SLNB) has changed the diagnostic and therapeutic approach to melanoma and can obviate the need for prophylactic lymphadenectomy. With this study we evaluated the feasibility of SLNB as a day surgery procedure.

**Methods:** A total of 158 Patients (88 males, 70 females) underwent SLNB for melanoma between February 2003 and January 2013 at the Surgery Department of Tor Vergata University, Rome. The indication for SLNB was Breslow thickness >0.75, Clark >III and mitosis >1 high power field (HPF). After lymphoscintigraphy, we marked the points with the highest signal. Vital dye was never used. Intraoperative localization was obtained with a Scintiprobe MR-100. The kind of anesthesia depended on the number and site of the lymph nodes.

**Results:** The preliminary lymphoscintigraphy clearly showed the site of lymph drainage. The sentinel lymph nodes were positive in 18 cases. The number of lymph nodes removed was <4 in 115 patients, 4-9 in 28, and >9 in 15. SLNB was performed in 60 hospitalized patients and as a day-surgery procedure in 78 patients.

**Conclusions:** SLNB for cutaneous melanoma in day-surgery regimen is both safe and feasible. No patient in this series required hospitalization after the procedure. Using only radiotracers we consistently localized the sentinel lymph node. A multidisciplinary approach is mandatory in the diagnosis and treatment of melanoma.

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**HEAD AND NECK MELANOMA: SENTINEL LYMPH NODE BIOPSY**

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**Objective:** The presence of melanoma in the head and neck has increased dramatically in the last decades. The widespread use of the sentinel lymph node biopsy in the management of head and neck melanoma has been limited though for several reasons: the complexity of lymphatic drainage in the head and neck region, the limited distance between the primary lesion and the sentinel node, the risk of a facial nerve injury, since approximately 25–30% of the sentinel nodes is found within the parotid gland.

**Methods:** From 1999 we have treated 585 patients with melanoma. 15% of the patients examined had head and neck melanoma. Breslow > 1 mm was found in 10% of the cases, therefore we opted for the search of the sentinel lymph node.

**Results:** Sentinel lymph nodes (SLNs) were successfully localized in more than 92% of cases. The rate of tumor-containing SLNs ranged from 15–20%. Only in these cases we performed latero-cervical lymph nodes dissection.

**Conclusions:** The sentinel node biopsy in melanoma of the head and neck region is currently the "gold standard" but the cooperation of experienced surgeons and nuclear medicine staff is essential for a successful procedure. These developments have significantly decreased the morbidity associated with the evaluation and treatment of the metastatic disease to the neck.

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**EDS PROTOCOL: SURGICAL TREATMENT OF BONE METASTASES IN THE APPENDICULAR SKELETON**

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**Objective:** Bone metastasis is the most common form of bone malignant tumor. More than 60% of all carcinoma tends to disseminate to skeleton which is the third site of metastatic spread after lung and liver. One of every five patients with metastatic neoplasm will have symptomatic bone metastases.

**Methods:** The sites most commonly involved are the spine, pelvis and proximal extremity of long bones. The patient with metastatic bone disease is often treated by different specialists such as orthopaedic surgeons, oncologists, radiotherapists without any guideline. The Center EDS proposed a protocol for the treatment of appendicular skeleton metastases, which describes the indications for surgery, the types of operation and the available reconstruction techniques.

**Results:** The protocol aim is to offer an individual treatment, in order to control pain and to manage impending and pathological fracture. In selected cases the complete resection of an isolated metastasis may be indicated.

**Conclusions:** Short-term improvement in pain and in functional status is particularly important for patients with limited life expectancy. This is especially true for lesions involving the lower limb that severely restrict deambulation. Avoiding undertreatment or overtreatment, the orthopaedic surgery can improve so function as quality of life in patients with neoplastic diseases.

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**SURGICAL MANAGEMENT OF ABDOMINAL MANIFESTATION OF TYPE 1 NEUROFIBROMATOSIS: EXPERIENCE OF A SINGLE CENTER**

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**Objective:** Neurofibromatosis type 1 (NF1) is a genetic disease characterized by neoplastic and nonneoplastic disorders involving tissues of neuroectodermal and mesenchymal origin. The mainly involved districts are skin, the central nervous system, and eye and there is a wide range of severity of clinical presentations. Abdominal manifestations of NF1 include five kinds of tumors: neurogenic tumors (neurofibromas, malignant peripheral nerve sheath tumors [MPNSTs], and ganglioneuromas); neuroendocrine tumors (pheochromocytomas and carcinoids); nonneurogenic gastrointestinal stromal tumors (GISTs); embryonal tumors; and miscellaneous.

**Methods and results:** The present experience depends on the participation in the National Project for Diagnosis and Treatment of Rare Diseases. In the group of patients with a diagnosis of von Recklinghausen disease, 10 patients underwent surgical treatment for gastrointestinal and retroperitoneal tumors associated with NF1. Three patients underwent adrenalectomy for pheochromocytoma (in one case associated with jejunal wall neurofibroma); two patients were found to be affected by MPNST (recurrent and unresectable in one case). One patient was affected by giant gastric GIST and jejunal neurofibroma; two patients were affected by extraperitoneal neurofibroma (pararenal and pararectal position); one patient was affected by giant colic neurofibroma and one patient was affected by retroperitoneal bilateral plexiform neurofibromas.

**Conclusions:** Early diagnosis of these abdominal manifestations is very important because of the risk of malignancy, organic complications (such as pheochromocytoma), or hemorrhagic-obstructive complications such as in case of tumors of the gastrointestinal tract (GISTs and neurofibromas). The importance of an annual clinical evaluation on the part of a multidisciplinary pool of clinicians in highly specialized centers allows early detection of complications and of neoplastic transformation. Genetic screening allows preclinical diagnosis with a sensibility of 95 per cent. Further studies are necessary to detect predictive factors of malignant tumor development of severe clinical conditions.

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**ELECTROCHEMOTHERAPY, A NEW WEAPON AGAINST TUMORS. OUR EXPERIENCE IN THE HOSPITAL OF TOR VERGATA UNIVERSITY OF ROME**

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**Objective:** Electrochemotherapy (ECT) is a standardized treatment for cutaneous and subcutaneous tumors. The aim of this paper is to present our experience using ECT in cutaneous and subcutaneous tumors of different histologies.

**Methods:** As part of a multidisciplinary approach, using Cliniporator® generator we treated 38 patients with 49 sessions: 2 with local recurrence of squamous cell carcinoma of the anus, 1 with vulva's carcinoma, 2 with metastatic soft tissue sarcoma, 1 with cutaneous metastasis from neuroendocrine pancreatic carcinoma, 2 with cutaneous metastases from lung cancer, 4 with cutaneous metastatic melanoma, 4 with Kaposi's sarcoma, 4 with skin metastases from breast cancer and 15 with epitheliomas of the head and neck, 3 with epitheliomas of other districts. Our protocol follows European Standard Operating Procedures on Electrochemotherapy (ESOPE 2006). The main parameters evaluated were efficacy, bleeding and pain. The follow-up was performed by weekly outpatient visits until wound healing and photographic documentation.

**Results:** We obtain excellent results regarding pain, bleedings, and the necrosis of the neoplastic tissue. We registered a good compliance of the procedure. In all cases there was a significant reduction of pain evaluated at 24h after treatment and patients referred an improvement of the quality of life.

**Conclusions:** ECT is simple to perform and the results are independent tumor histology. It is also minimally invasive, and can be performed in Day Surgery with safety. This treatment is repeatable and requires a low chemotherapeutic dose and can be imbricated to standard chemotherapy treatments, with a high objective response rate.

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