Mel 13**PROPHYLACTIC HYPERTHERMIC EXTREMITY PERFUSION OF MALIGNANT MELANOMA STAGE I**

J. D. Roder, J. Lange, M. Huth, J. R. Siewert

Several studies show, that regional hyperthermic perfusion with cytostatic drugs can reduce the recurrence rate and prolong survival time as compared to sole surgical excision of malignant melanomas stage I.

Method: The extremity is heated by means of a heat exchanger to 40° C via an extracorporeal circuit, which is connected to the axillary or to the femoral vessels. Then Melfalan as cytostatic drug, 1.0 mg/kg BW for the arm respectively 1.4 mg/kg BW for the leg, is administered and the extremity is perfused at 40° C for one hour. The average Melfalan concentration in the perfusate was 24.4 ± 8.2 mg/ml. If the MM had not yet been locally excised, this is done after the perfusion together with lymph node dissection.

Patients: We treated 64 patients suffering from malignant melanoma stage I (M.D. Anderson-classification), 44 men and 20 women. The upper extremities were affected 11 times and the lower extremities 53 times, the average age was 44.2 ± 12.4 years.

Results: In a mean observation time of 585 days there were 6.25 % recurrences (4 patients). Three patients had intransit metastases and one patient had a local recurrence. Systemic metastases were found in 9.3 %. The 2-year survival rate was 95.5 %. Comparing these figures to patient collectives with MM of the extremities which were only locally excised, one finds a clear superiority of the prophylactic extremityperfusion concerning the rate of recurrences as well as the survival time.

Chirurgische Klinik und Poliklinik der Technischen Universität München, Klinikum rechts der Isar, Ismaningerstr. 22, D-8000 München 80

Mel 14**RATIONALE OF REGIONAL CHEMOTHERAPY FOR MELANOMA METASTATIC TO THE LIVER**

H. Voigt

Systemic chemotherapy for metastatic melanoma so far has not been reproducible successful. As a consequence, chemotherapeutic approaches have been developed that might focus the anti-tumor action selectively at the target tissues by increasing the cytotoxic drug concentration within the target subsequent to intra-arterial drug delivery. Thus systemic drug levels and toxicity can be reduced. The concentration of the drug within the target will be optimal if a given dose is applied intra-arterially through a vessel with a relatively small diameter provided that the perfusion rate of the target is small enough to avoid rapid wash-out of the drug. If the drug is metabolized or excreted through the target tissue the systemic concentration will be minimal. These correlations imply that for regional chemotherapy drugs should be chosen that have a short plasma half-life time and a high total body clearance. In melanoma this is especially true for Cisplatin. An additional concept has become the administration of degradable starch microspheres (DSM*) in order to transiently occlude the arteriolar access to the target region thus leading to increased drug exposure in combination with the drugs applied. DSM have a mean diameter of 45 µm and an in-vitro half-life time of 25 minutes. They are completely degraded by the physiological concentration of endo-hydrolases (amylase) in serum thus reconstituting normal blood flow and microcirculation after the time period of circulatory arrest. If a drug is dissolved and administered together with DSM it will therefore be retained in the capillary vessels subsequently enhancing exposure time to the target cells while systemic drug exposure and toxicity will be reduced. *Spherex^R, Pharmacia

Häm.-onkol. Praxis Altona, D-2000 Hamburg 50 FRG

Mel 15**SURGICAL TREATMENT OF TORSO MELANOMAS**

H. Walther, K.R. Aigner and K.H. Muhrer

Before 1969 the prevailing method of therapy for malignant melanoma of the trunk was radiation therapy. In the meantime, mainly under anglo-american influence, this kind of therapy has been replaced by a specific surgical method, orientated along the lymphatic canals, which might be called the melanoma surgery.

Since 1980 71 patients have been operated on, suffering from malignant high risk melanomas of the trunk. The decision by which surgical method to proceed, is made feasible by pre-surgery lymphatic scintigram with application of Tc^{99m}, by which most of the important lymphatic canals will be presented for view. We have been encouraged by this method of examination to perform even atypical en-bloc-dissections of primary tumor site and regional lymphnodes.

In 12 patients axilla -dissection and en-bloc extirpation of the melanoma has been performed. The median survival rate is 37 months by a disease-free intervall of 30.4 months. Up to date one patient has died.

In 12 other patients with so-called midline melanomas the tumor area plus 2 lymphnode stations have been excised in two directions: either vertically or horizontally en-bloc (first described by ARTEL). All patients are still alive without distant metastases.

We believe, that en-bloc removal of tumor and regional lymphnodes curtails the risk of metastases and the recurrency of recidives.

Klinik für Allgemein- und Thoraxchirurgie der Justus Liebig Universität, Klinikstr.29, D-63 Gießen

Mel 16**PHOTOCATAMNESTIC EVIDENCE OF PROTRACTED GROWTH OF INITIAL MELANOMAS - CHANCE OF EARLY RECOGNITION**

E. Paul

A typical statement in the case history of melanoma patients is that a pigmented mole had existed for many years at the site of the melanoma, which initially had not shown any visible changes. Suddenly, however, an increase in size and thickness was noted which made the patient suspicious and urged him to see his doctor. By evaluation of family photographs, the development of malignant melanoma could be retraced in many patients (Paul, 1984). In all these cases the pigmented lesion could be observed over many years or even decades prior to excision of the melanoma. The conspicuous dark color and the unusual changes in size give rise to doubt whether it was initially a benign lesion which developed into a melanoma during the observation period or whether it was malignant from the very beginning. Usually, the patients do not notice the slow initial alterations but will only pay attention to the more rapid changes in advanced melanomas. The apparently unchanged lesion is then interpreted as harmless "mole" and is not suspected of being malignant until more rapid growth occurs.

Our observations demonstrate that initial melanomas may change very slowly and often remain at a developmental stage with low tumor thickness for many years. During this phase, an "early recognition" is still possible.

Zentrum für Dermatologie und Andrologie - Hautklinik - am Klinikum der Justus-Liebig-Universität, Gaffkystraße 14, D-6300 Giessen