SUMMARY

This thesis is a compilation of four articles concerning malignant melanoma localized on the extremities and treated with regional perfusion. Loco-regional metastasized melanomas as well as primary melanomas were considered.

Chapter II presents the results of a retrospective comparative study evaluating adjuvant regional perfusion in patients with stage I malignant melanoma (Clark IV/V and tumorthickness ≥ 1.5 mm). Wide local excision combined with adjuvant regional perfusion was compared to wide local excision alone. The last group was selected from the patient material of the Sydney Melanoma Unit (Australia). Only female patients were compared, there being insufficient male patients with a tumor of the lower extremity.
Both the Groningen and the Sydney group were identical. The group with a tumor of the leg (excluding the foot), that received adjuvant regional perfusion had a significantly higher 10-year survival rate (80.8% vs 60.3%), a significantly higher disease free rate (77.2% vs 45.0%), and significantly fewer local regional recurrences (21.7% vs 53.6%), than the group that received wide local excision alone. These differences were not found between the groups with a tumor of the foot.

Chapter III presents the results of 100 patients with loco-regional metastasized malignant melanoma treated both by normothermic regional perfusion and hyperthermic regional perfusion. Hyperthermic regional perfusion gives a significantly higher 5-years survival than normothermic regional perfusion: 45% vs 17%. No differences in survival were found between stages II-III 5 years after treatment nor was there any

sex difference. Furthermore it was noticed that if loco-regional recurrence occurs after treatment, it will be found in 77% of patients within two years and that of these 76% will die of tumor within two years. Results show that regional perfusion is the treatment of first choice in patients with loco-regional metastasized malignant melanoma.

Chapter IV presents a comparison of hyperthermic regional perfusion with melphalan, and a combination of melphalan and actinomycin-D in the treatment of patients with locally metastasized malignant melanoma. Neither disease free rate, nor disease free interval between regional perfusion and recurrence of tumorgrowth differs between these two forms of chemotherapy.

Chapter V evaluates the value of inguinal node biopsy both as a staging method, and as an indicator for elective inguinal node dissection in patients with clinical stage I malignant melanoma treated by hyperthermic regional perfusion. In 16 (9%) of 179 clinically stage I patients a metastatic node of Rosenmüller was found. Fifteen of these patients underwent therapeutic inguinal node dissection and in 11 (73%) no further metastatic nodes were to be found upon histological examination. Comparing tumor thickness it was found that 13 of these 15 patients had a tumor $\geq$ 4.0 mm thick, and nine a tumor $\geq$ 5.0 mm thick. The difference in 5-year survival between the group with a metastatic node biopsy and the group without a metastatic node who during follow-up developed inguinal node metastases was 45% (69% vs 24%), but statistically not significant. It was found that given a tumor-thickness $<$ 5.0 mm inguinal node biopsy supplies sufficient information for staging the disease process. In tumors with a thickness $\geq$ 5.0 mm elective inguinal node dissection should be considered to improve survival.

SAMENVATTING

Dit proefschrift is same
het maligne melanoom, g
met regionale perfusie.
als primaire melanomen.

Hoofdstuk II beschrijft
onderzoek naar de waar
ten met een stadium I
melanoom. Vergeleken
adjuvante regionale per
deze laatste groep were
de Sydney Melanoma Un
alleen voldoende vrouwe
de onderste extremitei
waren identiek. De gro
een adjuvante perfusie
overlevingspercentage
ziektevrij percentage (7
onale recidieven (21.7%
locale excisie onderging
de respectievelijke groe

In hoofdstuk III worde
patienten met een lo
behandeld met normot
blijkt dat met hyperth
5-jaars overleving wor