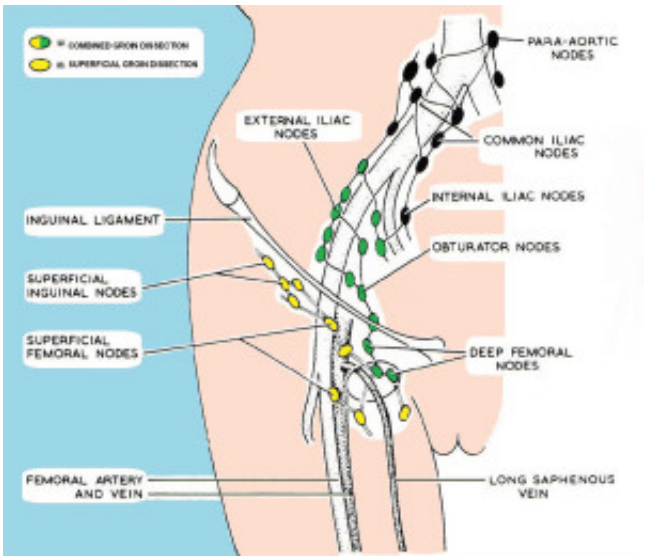
Palpable melanoma groin lymph node metastases

Melanoma is the most lethal type of skin cancer. In 2012 232,130 persons were diagnosed worldwide, and 55,488 estimated deaths occurred due to melanoma.

Patients who present with a palpable lymph node metastasis in the groin area are a subgroup with a poor prognosis; at 5 years post diagnosis only 12 – 52% are alive. Currently, treatment for these patients consists of a therapeutic lymph node dissection. This can be a superficial groin dissection (SGD) including the superficial inguinal lymph nodes or a combined superficial and deep groin dissection (CGD) also including the deeper pelvic lymph nodes along the iliac artery and vein, and the obturator loge.



There is ongoing debate whether this radical CGD is really necessary, or if a SGD would suffice. Morbidity may be more limited when performing SGD alone, and several studies have shown comparable local control rates and similar survival. However, if deep pelvic lymph node metastases are suspected at preoperative CT-scan or PET-CT scan, a CGD is warranted in order to remove all visible tumor in the pelvic area.

This study aimed to analyze risk factors for presence of pelvic lymph node metastases in a cohort of patients with palpable melanoma lymph node metastases in the groin area. This could aid in the development of an algorithm for more selective surgery in the future.

A total of 209 patients were selected who underwent a CGD in one of four tertiary melanoma centers in the Netherlands between 1992–2013. Selection was based on presence of an adequate preoperative (PET) CT-scan and a detailed pathology report describing the number of removed lymph nodes. Analyzed risk factors included baseline and primary tumor characteristics, number of removed inguinal lymph nodes (including number of tumor positive lymph nodes), inguinal lymph

node ratio (LNR = no. of tumor positive inguinal nodes divided by the total no. of removed inguinal nodes), and suspicious deep pelvic lymph nodes on preoperative imaging (CT or PET-CT-scan).

The median age of all patients was 57 years, 54% of patients were female. Median follow-up was 21 months (interquartile range (IQR, i.e. 25% and 75%) 11 – 46 months). Median Breslow thickness of the primary melanomas was 2.10mm (IQR 1.40 – 3.40mm), and 26% of all primary melanomas were ulcerated, (which is a poor prognostic factor). Tumor positive deep pelvic nodes were present in 35% of all patients.

Patients were divided into two groups based on presence or absence of tumor positive deep pelvic nodes. Patients without pelvic lymph node metastases had significantly fewer tumor positive inguinal nodes: median 1 positive inguinal node vs. median 3 positive inguinal nodes for patients with pelvic node metastases (p