

10th International Symposium on head and neck skin cancer

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10th International Symposium on Diagnosis and Treatment of Head and Neck Cancer: Skin Cancer of the Head and Neck Amsterdam, The Netherlands, 14–15 April 2011

Since 1993, ten multidisciplinary symposia were organized at The Netherlands Cancer Institute on the diagnosis and treatment of malignancies of the head and neck. The symposia are meant to provide up-to-date teaching for physicians by world-renowned speakers. The previous symposia dealt with sarcomas, reconstruction, cancer in young patients, salivary glands, melanoma, unknown primaries, as well as several other topics. This 10th symposium focused on skin cancer of the head and neck. There are many types of skin cancer and the differential diagnosis can often be difficult. In this symposium, diagnosis, molecular biology, epidemiology, staging and the treatment of various skin cancers were discussed by leaders in the field. There were over 200 participants from many different countries in Europe and overseas, representing specialties in the fields of dermatology, maxillofacial surgery, otolaryngology, head and neck surgery, general surgery, plastic and reconstructive surgery, and radiotherapy.

Epidemiology & pathogenesis

The pathogenesis of skin cancer was discussed by Wolter Mooi (VU Medical Center, Amsterdam, The Netherlands). The influence of UV irradiation on pyrimidine dimer formation within DNA as well as the possible DNA-repair pathways (nucleotide excision repair) and deficits were discussed. Mooi clearly showed the enormous amount of daily mutations by faults in DNA replication as well as external mutagens. Fortunately, most oncogenic mutations do not lead to cancer formation as these cells go into apoptosis or growth arrest. The pathways involved in skin tanning are triggered by p53 upregulation, which is a response to DNA damage. Humans have two forms of melanin: eumelanin and pheomelanin. Unfortunately, fair-skinned people with red hair mainly form pheomelanin which does not protect against UV irradiation, thus increasing the chance of mutagenesis. Apart from UV irradiation, the polyoma virus probably plays a major role in Merkel cell carcinomas [1].

The rising incidence of skin cancer was eloquently shown by Jezus E Medina (Oklahoma University Health Science Center, OK, USA). In his talk he compared the rising incidence of head and neck skin melanoma in the USA,

Australia and The Netherlands. A yearly increase of over 5% in males was observed in The Netherlands, whereas this was only 2% in Australia and 3% in the USA. In addition, in The Netherlands the male–female ratio was almost one, whereas in the USA and Australia more males were affected. These figures, although unexplained, show that in The Netherlands individuals are probably less aware of the risks of sun exposure, especially between 11 AM and 2 PM. Apart from melanoma, the incidence of basal cell carcinoma (BCC) and squamous cell carcinoma (SCC) is also rising between 1 and 4% each year, BCC being the most common malignancy in man [2]. Although most of these nonmelanoma skin cancers are detected at an early stage and behave in a rather benign fashion, Fons Balm pointed out that a subgroup of these malignancies behave like wolves in sheep's clothing. In his lecture he pointed out that mismanagement by doctors is the major cause of complications, increased morbidity and even death. He advocated centralized treatment for advanced and aggressive subtypes of BCC and SCC of the skin. The new International Union Against Cancer Tumor, Node, Metastasis (UICC TNM) classification with significant modifications for

most subtypes of skin cancer as well as neck staging was also discussed [3]. Risk factors for aggressive behavior were pointed out by Michiel van den Brekel as well as Medina in their talk on the assessment and management of lymph node metastases. These risk factors in SCC are lesions of 4 cm (T2) and larger, invasion depth of more than 4 mm, lesions in the H-region of the face, perineural growth, lymphovascular invasion, undifferentiated lesions and immunosuppression. In addition, recurrences, incomplete excisions and lesions occurring in scars have a worse prognosis. Squamous cancers fulfilling these criteria warrant assessment of the neck and follow-up of the neck, preferably using ultrasound-guided fine-needle aspiration cytology. The role of positron emission tomography-computed tomography (PET-CT) and other imaging modalities is quite small for most skin cancers. Only in case of stage 3 melanomas and other skin cancers with neck metastases there is a role for further imaging (also to guide further postoperative radiotherapy and search for distant metastases) [4,5].

With regard to the surgical management of the neck, Medina showed that in node-positive melanoma patients, there is no place for selective neck dissection, and depending on the location of the primary, parotidectomy and/or posterolateral dissections can be indicated [4–6]. In regional metastases from SCC, often a more selective neck dissection with postoperative radiotherapy is the treatment of choice [7]. In SCC and melanoma, there is no indication for elective neck treatment. Omgo E Nieweg (The Netherlands Cancer Institute, Amsterdam, The Netherlands) gave a very robust overview on the strategy of sentinel node biopsy in head and neck skin melanoma. He demonstrated that when performed meticulously, less than 5% of the occult metastases will be missed [8]. From recent reports, it is becoming more and more clear that the sentinel node procedure also has an advantage for the prognosis of patients with occult metastases (Morton, International Sentinel Node Society, Yokohama, 18–20 November 2010 [abstract]). It was concluded that in melanoma's between 1 and 4 mm, this procedure should be advocated.

Babs Reichgeld (Leiden University, Leiden, The Netherlands) reported on the epidemiology and survival of Merkel cell carcinoma in The Netherlands [9]. Reichgeld carried out a retrospective study from 1993 to 2007 including 808 patients from The Netherlands Cancer Registry. Approximately 50% occurred in the head and neck area, and the male–female ratio was almost equal (whereas in the USA three-times more males were affected). Its incidence increases with older age, and strikingly the incidence has doubled within the last 15 years. Overall, the 5-year survival rate was 62% for all stages, whereas it was 51% for those with regional metastases (16% of patients). Patients who received locoregional treatment, either by neck dissection of adjuvant radiotherapy, seemed to do better than those only treated locally. It was recommended to either stage the neck with a sentinel node procedure, or treat the neck electively using either surgery or radiotherapy.

The role of radiotherapy in skin cancer was discussed by Coen RN Rasch (The Netherlands Cancer Institute, Amsterdam, The Netherlands). He pointed out that postoperative radiotherapy

reduces the chance of locoregional recurrences in melanomas and SCCs, especially in patients with more than two lymph node metastases or extranodal spread. Although these are only retrospective studies [10], they point towards a significant advantage for the patients. The role of chemoradiation in stage 3 SCC of the skin is still unclear.

There were several contributions to Mohs' surgery and non-surgical management of BCCs. Biljana Zupan-Kajcovski (The Netherlands Cancer Institute, Amsterdam, The Netherlands) elaborated on the use of photodynamic therapy for BCCs and Bowen disease, but also showed that imiquimod, cryotherapy and 5-fluorouracil can be used in superficial lesions. Nicole W Kelleners-Smeets (University Medical Center Maastricht, Maastricht, The Netherlands) showed that in recurrent lesions in the face and on critical locations, Mohs' surgery can be advantageous in minimizing the defect and enabling one-stage reconstruction [11]. Peter JFM Lohuis gave a very nice overview on the reconstructive ladder, varying from primary closure, leaving the wound open for secondary healing to local flaps and free vascularized reconstruction. He also demonstrated that it is wise to postpone reconstruction until there is certainty regarding the resection margins. George Lieben (The Netherlands Cancer Institute, Amsterdam, The Netherlands) showed his results on epitheses for the face, which often rendered better esthetic results than surgical reconstructions of the nose and ear. Brigitte HIM Drost (The Netherlands Cancer Institute, Amsterdam, The Netherlands) showed that tattooing scars can make them less obvious.

Apart from these talks, there were many other contributions. Presentations by Germaine N Relyveld (Netherlands Cancer Institute, Amsterdam, The Netherlands) and JPW van der Veen on noninvasive diagnostics and The Netherlands Cancer Institute melanoma unit showed the use of sequential digital dermoscopy as well as reflectance confocal microscopy and optical coherence tomography, which all need further evaluation before becoming routine [12]. A very informative overview on skin lymphoma was provided by Rein Willemze (Leiden University Medical Center, Leiden, The Netherlands). John BAG Haanen (The Netherlands Cancer Institute, Amsterdam, The Netherlands) gave a lecture on recent advances of immunotherapy in melanoma and showed for the first time that improvements in prognosis are reported using ipilimumab (anti-CTLA-4 monoclonal antibody) [13]. New small molecules targeting the BRAF pathway are also promising [14]. Loes van Velthuysen (The Netherlands Cancer Institute, Amsterdam, The Netherlands) gave an overview on the histopathologic features of different skin malignancies and Frits van Coevorden (The Netherlands Cancer Institute, Amsterdam, The Netherlands) lectured on skin sarcomas. Mucosal melanomas were discussed by Medina. Lawrence E Ginsberg (MD Anderson Cancer Center, TX, USA) gave a very nice lecture on the use of CT and MRI in evaluating perineural spread.

In conclusion, during this 2-day symposium the participants were updated on the latest developments in skin cancer diagnosis, epidemiology and treatment. The atmosphere was good and the discussions were open.

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