Basal cell carcinoma – Epidemiology and surgical treatment

Background
Basal cell carcinoma (BCC) is the most common skin cancer in fair skinned populations. In Sweden 45 000 cases of BCC are diagnosed each year. However, BCC registration is often incomplete, resulting in insufficient knowledge of its true incidence. Surgery is the preferred treatment of choice and an incomplete excision often leads to recurrence.

Problem statements
1) - What is the incidence of BCC in Sweden and has it changed over time?
   - How is BCC distributed in the population regarding patient and tumour characteristics?
2) - How is BCC incidence affected by socio-economic status?
3) - How is BCC incidence affected by the use of photosensitizing medication?
4) - How large part of BCC-excisions are incomplete?
   - Is risk of incomplete excision affected by BCC-subtype or tumour site?

Method
Project 1-3: Data regarding histologically verified BCC tumours for the years 2008-2017 was collected from the Swedish Basal Cell Carcinoma Registry (SweBCCR). Data regarding included patients was also collected from the Swedish Prescribed Drug Register and the Education Register. Two controls per case in the SweBCCR was collected from the Total Population Register. Data was analysed in cooperation with statisticians from Clinical Studies Sweden, Forum South.

Project 4: Data for the years 2008-2015 was collected from the local tumour registry at the Dermatology department, Helsingborg hospital. Frequency of incomplete excisions was investigated in correlation to tumour subtype and tumour site. Data was analysed in cooperation with a statistician from Clinical Studies Sweden, Forum South.

Preliminary results
Project four showed a highly increased frequency of incomplete excisions among aggressive BCC tumours located on the nose or ears. Regarding the first project, preliminary results show a high and steadily increasing incidence of BCC in Sweden.

Scientific meaning
BCC is the most common cutaneous malignancy. Knowledge regarding epidemiology of BCC as well as possible risk factors is crucial to develop guidelines for prevention, screening and adequate community information.

Surgery is gold standard treatment for BCC. Evaluating risk of incomplete excision is important to assess which patients should be offered surgery with perioperative margin assessment.
Published studies