



EPIDEMIOLOGY

NEW EPIDEMIOLOGY OF SKIN CANCER IN RURAL QUEENSLAND, AUSTRALIA

Scott James Kitchener⁽¹⁾ - Janani Pinidiyapathirage⁽²⁾ - Keegan Hunter⁽¹⁾

Griffith University, Health, Southport, Australia⁽¹⁾ - University Of Southern Queensland, Agricultural Health And Medicine Research Group, Toowoomba, Australia⁽²⁾

Background: Australian skin cancer data does not recognize the potential different epidemiology in rural communities arising from different exposures and remoteness from specialist care.

Objective: 1. Investigate the epidemiology of skin cancer in rural communities, and
2. The relative risks of farmers for skin cancer.

Materials and Methods: We conducted clinical record audits of melanoma and keratinocytic cancers (KSC) identified by billing records and electronic clinical records, confirmed and typed with histology in seven communities on the Darling Downs, which has the highest incidence of skin cancer in Australia. Controls selected (for farmer relative risk) included 1212 people for melanoma and 4842 people for KSC cases.

Results: Of 5463 KSC (39.9% BCC, 27.3% iSCC, 27.3% IEC, 5.4% KA) among 2677 patients, most BCC (69.9%) had axial distribution while most SCC (60.1%) had limb distribution. Anatomic distributions of KSC in this region population was significantly different to that found more generally in Queensland ($p < 0.05$).

Of 317 melanoma identified (294 primary), 88% were ≤ 1 mm thick and 87% managed locally with no recurrence at one year. Planned skin examinations identified 41% of melanoma and 30% of KSC. Melanoma identified in planned whole-body examinations were significantly more likely to be ≤ 1 mm depth at diagnosis ($p < 0.05$).

The risk of melanoma was no greater for farmers than for others in their community (OR=1.07; CI=0.7-1.7), however, farmers were more likely to experience KSC (OR=2.65; CI=2.2-3.1).

Conclusions: The BCC:SCC ratio is different in these rural communities, representing a different pattern of ultraviolet exposure and potentially also a more comprehensive surveillance process used in this study than previously.

Farmers have a greater risk of KSC compared to others in their community but no greater risk of melanoma.

Secondary prevention of skin cancer overcomes lesser access to diagnosis and treatment





that has led in rural:urban cancer outcomes disadvantage in Australia.

