

Actinic & Nonactinic Dermal Squamous Cell Carcinoma in Dogs

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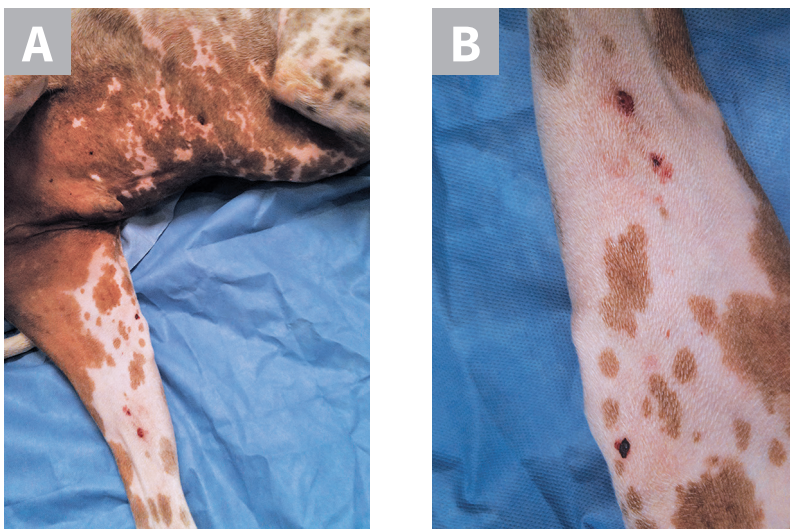
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In the Literature

Wilcox JL, Marks SL, Ueda Y, Skorupski KA. Clinical features and outcome of dermal squamous cell carcinoma in 193 dogs (1987-2017). *Vet Comp Oncol.* 2019;17(2):130-138.

FROM THE PAGE ...

Dermal squamous cell carcinomas (SCCs) are common skin tumors encountered in the clinic; however, large studies exploring the clinical features, behavior, and outcome of dogs with these tumors are lacking. Dermal SCCs occur in breeds



▲ **FIGURE** Multiple pinpoint actinic dermal SCCs at the medial aspect of the pelvic limb in a dog. This dog has light pigmented skin with minimal fur in the region the tumors developed.

with a nonpigmented, thin haircoat (eg, bull terriers, boxers, beagles, dalmatians, whippets), and many dermal SCC cases are related to sun exposure; tumors in these cases are referred to as actinic SCCs.¹⁻⁵ Actinic SCCs are often located in regions of the body with a thin haircoat and high exposure to the sun (ie, ventrum, head, inguinal region).¹⁻⁵

In this retrospective study, records of 193 dogs presented with dermal tumors to a university teaching hospital over a 30-year period were evaluated. Excluded from the study population were dogs with tumors involving the digit, oronasal, intrathoracic, and/or intra-abdominal sites. Differences in signalment, tumor location, and outcome of dogs with actinic SCC as compared with dogs with SCC without actinic changes were identified. Dogs with actinic SCC were found to be significantly younger and more likely to have multiple tumors; they were also significantly more likely to be of a predisposed breed, have a predisposed coat color, and have tumors in a predisposed location. In contrast, dogs with tumors lacking features of actinic change had a shorter survival time and higher risk for metastasis to the lungs and regional lymph nodes. Breeds overrepresented in this group included golden retrievers, German shepherd dogs, and Labrador retrievers. The 3 most common tumor locations for SCC without actinic change included the periarticular, ventral cervical, and perianal regions.

This study demonstrates that there are 2 clinically distinct groups of dermal SCC: actinic SCC, in which dogs experience a less aggressive clinical course of disease, and SCC without actinic change, in which dogs are at higher risk for an aggressive clinical course of disease. An understanding of these 2 distinct clinical groups can help clinicians make recommendations for an appropriate diagnostic investigation and counsel the owner on the patient's prognosis.

... TO YOUR PATIENTS

Key pearls to put into practice:

- 1** Two major clinical presentations may be seen in dogs with dermal SCC, with differing clinical courses and outcomes in each group.
- 2** Dogs at risk for development of actinic SCC often have nonpigmented skin and a light coat color, are younger, and/or have multiple tumors. The clinical course of this disease is typically less aggressive, and surgery alone can provide long-term control.
- 3** Dogs with SCC without actinic change often experience an aggressive clinical course and have a high risk for metastasis and shorter survival times; tumors tend to be located in the periarticular, ventral cervical, and perianal regions. Over-represented breeds include golden retrievers, German shepherd dogs, and Labrador retrievers.

References

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