

# capsules

## THE CURRENT LITERATURE IN BRIEF

### **Phenobarbital & Superficial Necrolytic Dermatitis**

Canine superficial necrolytic dermatitis (SND) is a progressive disorder associated with liver disease. Early in the course of disease the footpads are affected with crusting and hyperkeratosis. Dogs often have mild to moderate liver disease and low plasma amino acid concentrations. Some studies suggest that dogs may be in a hypermetabolic state with exaggerated amino acid catabolism. Retrospective studies have shown that SND was associated with preexisting endocrine disorders, such as diabetes mellitus, hyperadrenocorticism, and hypothyroidism, in 40% of affected dogs.

This study examined 11 dogs with SND that had received phenobarbital. Prolonged (more than 6 years) administration of phenobarbital was a common finding in dogs with SND in this study. Clinical signs of liver failure were not seen in 10 out of the 11 dogs; however, some changes were noted on ultrasonography and histopathologic examinations. These studies showed normal hepatic parenchyma surrounded by areas of collapsed parenchyma with vacuolated hepatocytes and some collagen deposition. These changes are typically the same as those found in SND, regardless of phenobarbital administration.

**COMMENTARY:** This study alerts us to an uncommon sequela of long-term phenobarbital therapy. Of 11 dogs with SND, phenobarbital had been discontinued in 6 dogs before the onset of skin lesions. The drug was tapered and discontinued in these dogs because of persistent increases in serum alanine aminotransferase activity. Affected dogs are in apparent good health without weight loss or systemic signs until skin lesions occur. In addition to painful feet, dogs with SND may have skin lesions at mucous membranes, genitalia, hocks, elbows, pinnae, axillae, and groin. Recognition and diagnosis of SND are important, as the long-term prognosis is poor even when phenobarbital is discontinued. —*Gail Kunkle, DVM, Diplomate ACVD*

*Superficial necrolytic dermatitis in 11 dogs with a history of phenobarbital administration (1995-2002). March PA, Hillier A, Weisbrode SE, et al. J VET INTERN MED 18:65-74, 2004.*