## **BeaCon SLO Survey Results**

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This information is from 71 Bearded Collies with completed surveys as of October 2011. There were 74 owners (47 USA, 12 UK, 4 Netherlands, 3 Canada, and 8 others). Some dogs from the open registry or with information coming directly from breeders or owners, but no survey, are included in the family pedigrees.

<u>Diagnosis</u>. Age of Onset was before 8 years in 89%. The average age was 3.9 years (min 0.5; max 8.7) in the 66 dogs for whom exact age of onset was known. Twelve dogs had a biopsy, 16 had nail biopsies, and 7 had skin biopsies. Others were diagnosed by clinical response to treatment regimens for SLO when owner and/or veterinarian were reluctant to do a biopsy. This is not ideal from a research perspective, yet it is the practicality of everyday life.

**Environment.** All but 4 dogs lived in homes rather than kennels; 59 were either born at home or placed in their home by 10 weeks of age. There were no differences in house flooring nor in outdoor surface exposure before or after onset of SLO.

General Health. The table shows other health conditions

experienced by SLO Beardies.

Condition	Number (% of total)
Ear infections	17 (20%)
Weepy eyes	10 (12%)
Food allergy	10 (12%)
Skin infections	9 (10.7%)
Eye infections	8 (9.5%)
Hypothyroid	7 (8.3%)
Atopy	3
Crusty nose	3

Ear infection was frequent (6 or more) in 3/17 Eye infection was frequent (6 or more) in 1/8 Skin infection was frequent (6 or more) in 3.9 Thyroid testing was done in 35 (42%). One hypothyroid dog had atypical Addison's.

A/I problems in relatives, miscellaneous. There were 45 dogs who relatives reported to have an A/I problem. Six dogs with SLO produced progeny with SLO and seven dogs with SLO produced other A/I problems (4 with Addison's in pups or grandpups; 1 kidney disease at 5 mo; 1 AIHA; 1 not specified).

Eight owners reported having had more than one Beardie with SLO and for five, the dogs were related to each other one more generations back.

<u>Vaccination and Preventive Use.</u> Fourteen (16.7%) of the dogs never received rabies vaccination; 43 received rabies boosters after the initial puppy vaccination every 3 years. The vaccination schedules for other diseases were quite varied and with different (or unknown) products. Thirty-one dogs were vaccinated in the 6 months prior to onset of SLO. In 12 the vaccination included or was only rabies. For the others, the

product(s) either weren't specified or were for a single or multiple infectious agents.

Heartworm preventives were used in 45 (54%) and flea/tick preventives were used in 59 (70%).

<u>Preceding Stress</u> was noted in 52 dogs and 28 owners thought the stressor(s) might have contributed to development of SLO. Stressors were single or multiple and included showing/trialing, vaccination, in season or pregnancy, weather related, rehome/move/family separation, or illness.

Thus, there was no unique preventive practice or preceding stress event(s) associated with onset of SLO.

<u>Clinical Nail Findings</u> (either initially and/or during course of disease).

Clinical Sign	# dogs	%
Pain	73	87%
Nails fall off	67	80%
Abnormal nail growth	64	76%
Bleeding	63	75%
Split nails	61	73%
Persistent licking	55	66%
Lameness	49	58%
Infection	49	58%
Initial loose nails	35	42%
Initial brittle nails	20	24%
Offensive odor	18	21%

The clinical findings are similar to those reported in other papers on SLO in multiple breeds. Most dogs had more than one clinical finding. Seventy dogs (83%) had all paws involved and some of those included dew claws. Fourteen had dew claws involved.

**Treatment.** Veterinary care was provided by a dermatologist in 23 (27.5%), generalist in 60 (71.4%), internist in 4, and other or not specified for the remaining dogs.

Treatments included one or more of the drugs shown in the table below. The most common combination was fatty acids, niacinamide, and tetracycline. There was a range in the dosage, duration of use, and source and type of each drug class.

Drug	# (%) dogs
Fatty acids	70 (83%)
Tetracyclines	54 (64%)
Niacinamide	44 (52%)
Antibiotics for infection	32 (38%)
Pain control	26 (31%)
Prednisone	14
Antifungal	11
Vitamin C	8
Trental	7
Immunosuppressives	2

SLO was ongoing or recurring problem for all but 13 of the dogs.

<u>Family History</u>. This aspect of the survey is incomplete. because family information remains to be gathered for some dogs. Currently available data are given in the following table and it appears to confirm the concern of a few participating breeders that genetics has a contributing role in expression of the disease. Families are "named" by an alphabet letter for convenience. There are common ancestors across some of the families.

Although nail biopsy (regular or dew claw) hasn't been done as often as researchers would like to see, still the record is pretty good for a retrospective study (meaning it was not planned ahead of time). There were 15 with nail biopsy, 7 with claw biopsy, 4 with skin biopsy.

The numbers of SLO affected dogs and those with complete enough littermate history to allow calculation of the minimum affected to total ratio are below. The ratio varies from a low of 11% to a high of 50%.

Pedigree	Total # affected dogs on pedigree – SLO survey + breeder information (no survey)	# affected dogs with reasonably complete littermate history to calculate minimum ratio of affected to total
A	6	3
В	18	12
C	20	9
Е	19	12
F	2	2
G	4	3
Н	34	14
K	3	3

Note: Pedigrees D, I, J, have insufficient data on littermates

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