



CLINICAL KNOWLEDGE INSIGHTS

LUPOID ONYCHODYSTROPHY

Clinical Knowledge Insight created by Judy Seltzer, BVetMed, MRCVS, DACVD

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AT A GLANCE

- The most common inflammatory disease to cause abnormal claws
- The cause of this condition is unknown but is suspected to be hereditary, inflammatory or immune-mediated
- Normally involves multiple nails/claws on all four feet
- Uncommon to rare in dogs
- Most commonly seen in middle aged dogs, 3-8 years of age
- Predisposed breeds include the German Shepherd, Rottweiler and Gordon Setter

PATHOLOGIC IMAGE LIBRARY : LUPOID ONYCHODYSTROPHY



Separation of claw in a Giant Schnauzer with lupoid onychodystrophy.



Crumbly claws in a dog with lupoid onychodystrophy



Onychogryphosis in a dog with lupoid onychodystrophy



Lupoid onychodystrophy before claw avulsion



Lupoid onychodystrophy after claw avulsion



Claws avulsed from dog.

WHAT DOES IT LOOK LIKE?

- Often starts as an acute onset of claw loss
- May be associated with significant inflammation or purulent discharge from nailbeds
- May also present as dry, distorted claws that do not slough on their own
- Typically, one or two claws are lost first, followed by sloughing of all claws within several weeks to months
- One or more of the following abnormalities are seen over time:
 - Onychogryphosis- abnormal curvature of the claws
 - Onychomadesis- sloughing of claws
 - Onychorrhhexis- fragmentation of the claws

- Onychoschizia- splitting of the claws
- Inflammation of the nail fold (paronychia) is uncommon unless there is a secondary bacterial infection present
- Other skin abnormalities and systemic illness are not seen
- Dogs with this disease may be asymptomatic or have associated lameness

WHAT ELSE LOOKS LIKE THIS?

- Bacterial claw infection
- Dermatophytosis/deep fungal infection
- Immune-mediated diseases:
 - Pemphigus vulgaris
 - Bullous pemphigoid
 - Lupus erythematosus
 - Vasculitis
 - Drug eruption
- Neoplasia (squamous cell carcinoma)
- Cryoglobulinemia or cold agglutinin disease

HOW DO I DIAGNOSE IT?

- History and clinical signs
- Fungal culture to rule out dermatophytosis
- Skin cytology/culture if significant paronychia is noted
- Surgical amputation or biopsy of an affected P3 for dermatohistopathology:
 - Hydropic degeneration of the basal cell layer
 - Lichenoid interface dermatitis
 - Pigmentary incontinence

DIAGNOSTIC TECHNIQUE VIDEOS: [ExcellenceInDermatology.com](https://www.excellencein dermatology.com) → [Education Library](#) → [Videos](#)

DIAGNOSTIC TECHNIQUE SECTIONS: [ExcellenceInDermatology.com](https://www.excellencein dermatology.com) → [Diagnostic Techniques](#)

HOW DO I MANAGE IT?

GENERAL INFORMATION

- Treatment will often take up to 12 weeks to see significant clinical response
- If there is minimal response after 6-8 weeks, medications can be added to the current protocol or changed altogether
- Treatment should be continued for a minimum of 6 months but may be necessary for the rest of the dog's life

SPECIFIC TREATMENTS

MANUAL REMOVAL OF LOOSE CLAWS

- General anesthesia recommended

OMEGA-3 AND OMEGA-6 FATTY ACIDS

- 180mg EPA/5 kg every 24 hours
- Often used in combination with vitamin E

VITAMIN E

- 200-400 IU by mouth every 12 hours

TETRACYCLINE/NIACINAMIDE

- Dogs weighing less than 10kg- 250mg of each by mouth every 8 hours
- Dogs weighing more than 10kg- 500mg of each by mouth every 8 hours
- This can be tapered to every 12 hours after noticeable nail regrowth
- Doxycycline at 5-10 mg/kg by mouth every 12-24h can be used in place of tetracycline

PENTOXIFYLLINE

- 10-25mg/kg by mouth every 8-12 hours

CYCLOSPORINE (ATOPICA)

- 5-10 mg/kg by mouth every 24 hours
- Tapered to lowest dose possible that prevents relapse

PREDNISONE

- Often reserved for cases that have failed other treatments
- 2-4 mg/kg/day for approximately 2-4 weeks, then tapered slowly to reach the lowest effective dose that prevents relapse

AZATHIOPRINE

- 1.1-2.2 mg/kg by mouth every 24 to 48 hours
- Monitor CBC and liver enzymes every 2 weeks until disease is in remission and dose has been decreased

ADDITIONAL INFORMATION

- Frequent trimming of claws (about every 2 weeks) to prevent further cracks
- Treatment with appropriate antibiotics if secondary bacterial paronychia is present
- Onychectomy may be considered for refractory cases associated with onychalgia (pain)
- Consider a food elimination trial if there is a suspicion of an adverse food reaction based on history and diagnostics
- Overall prognosis is good but claws may continue to break easily and remain deformed
- Manual removal of loose claws (general anesthesia recommended)

COMMENTS

- Also called symmetric lupoid onychitis due to the presence of inflammation involving the claws
- Lupoid onychodystrophy is the most common inflammatory disease that leads to abnormal claws and eventual claw loss.
- Diagnosis is often based on history and clinical signs although surgical removal and histopathology of an affected P3 is helpful for definitive diagnosis
- A variety of therapies can be used- one or multiple modalities of treatments can be used to treat the condition
- It will often take up to 3 months of treatment to see significant clinical response
- Some dogs will need lifelong therapy to maintain remission

FURTHER READING & REFERENCES

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