CLUB LAMB FUNGUS: PREVENTION AND TREATMENT

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Club Lamb Fungus began in Georgia in the late 80's. As far as I can tell, the first case officially reported occurred after the Tift County lamb show in 1987. We sheared our lambs the day before the show and were terrified to see scabs which were bloody from shearing on one of our wethers. Being close to a Veterinary Diagnostic Lab, we took the lamb to see what was happening. They had never seen anything like this but took biopsies and cultured a fungus. Identifying the exact infectious agent took a few weeks and turned out to be Trichophyton verrucosum. Unknown to me at the time, many states were discovering the same problem simultaneously. Because it was prevalent in market lambs being shown, this new disease rapidly became known as club lamb fungus.

What is Club Lamb Fungus?

Skin fungus is relatively rare in the sheep population. Supposedly, the layer of lanolin next to the skin acts as a protective barrier. If this barrier is compromised, then the skin is subject to an infection. Under normal flock conditions, the lanolin barrier remains intact even when sheared. Before being shown, market lambs are usually washed with soap before shearing and then slick shorn with combs that are designed to clip very closely. The washing removes the lanolin and the close shearing (often with surgical blades) causes at least minor skin abrasions. No one could design a better situation for challenging these animals with a fungal infection.

In lambs, this fungus appears as a lesion which consists of circular areas of matted wool with a raised, crusty scab. These lesions may be as small as a pencil lead or as big as a half dollar. When the scab is parted, the skin is bloody and may ooze. The lesions may appear on any portion of the body but are most prevalent where the skin is actually abraded, usually along the top of the loin or on the outside of the leg. Club lamb fungus is also contagious to humans. The lesions in humans may be irregularly shaped, unlike common ringworm. The skin will itch and ringworm medications are seldom effective. Left untreated, the lesions can leave a permanent scar. If you think someone in your family has club lamb fungus, then inform your doctor of what you suspect and he will have to prescribe medication.

Because of the contagious nature of this fungus to both sheep and humans, the Georgia State Veterinarian requires a health certificate stating that your local veterinarian has inspected the lamb and certifies that it is free of fungus. Animal health inspectors are present at every show and inspect all lambs before they are allowed to enter the barn. Any lamb showing suspect lesions are loaded back on the trailer and not allowed to show. As you can imagine, there have been many tears when a youngster was informed that his/her lamb could not participate in a show that they had been looking forward to.
A member of the ringworm family, club lamb fungus reproduces via spores. These spores may survive for several years. If a lamb with this fungus has ever been in your barn or at the fairgrounds where you show, then you must consider those premises forever contaminated and develop strategy to prevent your lambs from becoming infected.

Because this fungus affects a relatively small population of food animals, there has been very little research conducted. Most of what is known has been developed via trial and error. Consistency and attention to detail are key factors in successfully controlling this fungus. Once you have infection, there are effective treatments. However, as with any other infectious process, prevention is of utmost importance.

**Prevention:**

I can’t over emphasize that prevention is infinitely more pleasant than treatment. We have been challenged with club lamb fungus for 14 years. This is what works for us:

1. Purchase garden variety Captan. Make sure it is pure Captan and not a mixture with a pesticide. Captan is a fungicide and is very effective against club lamb fungus. It has good residual properties which mean that it will retain its protective abilities for days or even weeks.

2. Purchase Nolvasan (vet label) or Chlorosan (over-the-counter). These are two brand names of the same thing. Mix in water according to directions. Nolvasan is a disinfectant which acts quickly, but has very little residual value.

   When shearing lambs, dip your clipper blades in the Nolvasan solution often. This will disinfect the blades and help to prevent exposure.

   When you get home from the show, mix the two together (one tablespoon Captan per gallon of the Nolvasan mixture) and bathe the lambs. We put our lambs on the blocking table and completely soak them. You may want to put this solution in a hand sprayer for easy application. However, you should work the liquid into the wool with a brush or your hands.

   We have adhered to this regimen and had very few skin lesions. The lesions we did notice were probably not club lamb fungus.

An additional protective measure is to feed organic Iodine. The active ingredient is EDDI (ethylene diamine dihydro iodide). Iodine 40 is commonly available from your vet supply dealer. We feed one pinch (the amount you can pick up between your thumb and forefinger) per feeding. Be careful not to over feed EDDI for a prolonged period of time.
**Treatment:**

Almost any antifungal treatment will kill club lamb fungus. This fungus persists because of the thick scab that develops over the lesion. The fungus is actually in the skin. The scab prevents anything from reaching the level of the skin. That is why topical treatments are seldom effective. The most effective strategy we have found is:

1. Purchase strong tincture of Iodine (7-9% I). Lesser concentrations such as Betadine are not effective. Strong tincture of Iodine is available from either your vet supply dealer or from your local drug store. If purchasing from a drug store, you may need to ask the pharmacist. Strong tincture may not be on the shelf, but they often have it behind the counter. Also purchase a small squeeze bottle of baby oil.

2. Pour out 1/4 of the baby oil and replace with the tincture of Iodine. The Iodine separates from the oil, but will stay in suspension when shaken.

3. Treat any suspected club lamb fungus lesion with this mixture. I recommend using latex gloves for your protection and to facilitate rubbing the solution into the scab.

   This will kill club lamb fungus. In 3-4 days, you can peel the scab and see bare skin. If the lesion does not respond in this time period, then the lesion is not club lamb fungus.

   Many other strategies have been tried with varying degrees of success. I have heard of everything from black liquid shoe polish to Fluid Film (a penetrating oil available from John Deere dealers) are reported to work. You may have a remedy that works, but try to depend on reliable sources in order to avoid actual harm to the animal or exhibitor. I have seen the hide scalded where the “treatment” had dripped and run down the side of the lamb.

   Unfortunately, there are other skin infections which might appear similar to club lamb fungus if one is not experienced with the problem. I have witnessed several *staph* and *strep* infections which were misdiagnosed as club lamb fungus. If the above treatment with Iodine and baby oil is not effective, then pursue other avenues. The best recommendation in these cases is to have your veterinarian biopsy the lesion so the infective agent can be identified and sensitivity tests can be determined.

   In summary, I can say that we have experienced the full siege of club lamb fungus in Georgia over the past 14 years. I don’t envy those families and kids in Virginia and North Carolina who are not aware of the problem. They will eventually be affected. There are only two kinds of market lamb exhibitors -- those who have had club lamb fungus in their sheep and those who are going to get it. Without preventive measures, club lamb fungus is inescapable. I strongly encourage you to develop a strategy to deal with club lamb fungus. We, at all costs, want to avoid disqualification from the shows and possible infection of exhibitors and their families.