

## CASE REPORT

# Pediatric Molluscum Contagiosum and Non-Pharmacological Treatment featuring Oral and Topical Herbal Therapy: A Case Report

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### Abstract

A 15-month-old patient, diagnosed with Molluscum contagiosum (MC), which began with a four-lesion skin rash, that spread across his upper torso (and scrotum) resulting in more than one hundred red, swollen, raised, and itchy lesions. MC is an infection caused by the pox virus and commonly heals without treatment, although this may take months or even years. In the pediatric

population, infectious and contagious skin conditions which can spread through a daycare or school setting, are often treated. This patient's MC resolved over six weeks with Erchonia laser (low level violet light therapy) and oral and topical application of an herbal formula (Biocidin LSF). No side effects were noted or reported.

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### Introduction

Molluscum contagiosum (MC), a pox virus, is a benign and contagious skin rash that is not uncommon in the pediatric population. It often results in small, raised, skin-colored growths that may heal without treatment; however, it may take months or even years for MC to resolve.<sup>1</sup> The virus, which is very contagious, unsightly, and itchy, frequently causes the patient (and their parents) to seek treatment. Commonly occurring in children under the age of 10, pediatric MC can occur at any age; particularly in people who live in a warm and/or humid climate. Susceptible individuals may also have atopic dermatitis or a weakened immune system.

Symptomatic treatment, secondary to the increased risk of transmission and poorly tolerated symptoms, is increased in the pediatric population. Conventional treatments include cryotherapy, laser therapy, curettage, oral cimetidine, or podophyllotoxin cream (0.5%). Biocidin LSF is a nonprescription herbal formula which appears safe and potentially useful for a wide variety of conditions. This is a case report of a 15-month-old child who presented with widespread MC treated with Erchonia laser and twice daily use of oral and topical applications of this complex herbal formula. The lesions completely resolved over six weeks of treatment and there were no

reports of adverse reactions. This case report was written following the CARE health research reporting guidelines.<sup>2</sup>

### Timeline

#### 2019-10-24

**Initial Visit:** Parents brought their 15-month child into the Chiropractic Arts Clinic for evaluation of a skin rash diagnosed as Molluscum contagiosum. History and exam: anterior and posterior upper torso (and scrotum) rash - hundreds of red, swollen, raised, lesions that were itchy and appear infected. Recommendation: Erchonia laser treatment (low level violet light therapy).

#### 2019-10-28

**Follow Up Visit 1:** Parents state the rash is the same, but the infected lesions have improved. Erchonia laser applied to torso for 6 minutes and to back 6 minutes. Herbal medication (Biocidin LSF - 1 pump/day internally and topically 2 times/day), micellized D3 liquid (1 drop/day, 30 mcg D3/drop) and a probiotic blend of *Lactobacillus acidophilus* and *Bifidobacterium* (3 drops/day, 107.8 mg per three drops) were added to the treatment plan.

#### 2019-10-31

**Follow Up Visit 2:** Parents report rash has mixed progress with improvement (drying or shrinking) in older lesions, but a few new lesions appeared. Parents state, "rash is changing." Parents have been compliant applying herbal medication, Vitamin D, and probiotic. Recommendations: continue laser treatment and herbal medications.

#### 2019-11-06

**Follow Up Visit 3:** Parents report rash has improved. Torso is clearer and lesions that have dropped off are not

scarring. Lesions on back are drying up and no further infected ones. Pediatric dermatologist confirmed Molluscum contagiosum diagnosis. Recommendations: continue laser treatment and herbal medication.

**2019-11-08**

**Follow Up Visit 4:** Parents state the rash is improved and that they are pleased with the improvement. Their child now participates in activities of daily living without complaint. No new or infected lesions noted (the right arm still involved). Recommendations: continue laser treatment and herbal medication.

**2019-11-12**

**Follow Up Visit 5:** Mother reports she can now touch her baby's skin, "One of the greatest things about a baby is their soft skin and we could not touch his skin but now we can." Right arm lesions improved. Recommendations: continue laser treatment and herbal medication.

**2019-11-14**

**Follow Up Visit 6:** Parents rated lesions moderate with improvement and no itching. Recommendations: continue laser treatment and herbal medication.

**2019-11-19**

**Follow Up Visit 7:** Parents report lesions mild-moderate. No new lesions reported. Recommendations: continue laser treatment and herbal medication.

**2019-11-25**

**Follow Up Visit 8:** Lesions are reported by parents as mild to moderate-most of the lesions are healed with hyperpigmentation. Lesions on scrotum are completely resolved. Recommendations: continue laser treatment and herbal medication.

**2019-12-03**

**Final Visit:** Lesions reported by parents as mild. Final laser treatment, herbal medication can be continued.

### Narrative

The patient was a 15-month-old male who presented with a rash on his posterior and anterior trunk, scalp, right and left arm, and scrotum. The skin rash first appeared at five months of age with four lesions that were consistent with Molluscum contagiosum (MC). The child's primary care physician (PCP) initially elected to not treat the rash. At twelve months the rash had spread and there were more than one hundred lesions over the child's upper body. A subsequent biopsy by a pediatric dermatologist confirmed MC.

At 15 months, the child was seen at the Chiropractic Arts Clinic in Spencer, IA by Elizabeth Kressin, DC, who recommended an oral and topical herbal product (Biocidin LSF) and Erchonia laser for the now more than 100 lesions which were red, swollen, and raised (MC). They were also itchy and appeared to be infected.

Visits to the Chiropractic Arts Clinic occurred over six weeks between October 24, 2019 and December 3, 2019. The patient was treated with an Erchonia laser (low

**Figure 1.**



level violet light therapy) and herbal medication, to be taken orally and applied topically twice daily. By December 2019, six weeks later, all lesions had resolved without adverse events.

### Discussion

MC can be a challenging dermatologic condition to treat, particularly in young children at risk for viral transmission and not content to live with the natural

resolution of this infection over months or years.<sup>3</sup> MC is not only the third most common viral skin infection in children, but also one of the top five skin diseases in the world.<sup>4</sup> This herbal preparation (Biocidin LSF) is a broad-spectrum formula of 18 herbs and essential oils which appeared to be safe in this patient and effectively enhanced the resolution of MC in conjunction with other interventions.

The pathophysiology of MC is likely to involve a switching pattern in T helper 1/T helper 2 (Th1/Th2) balance and their associated cytokines within the skin. Typically, Th1 manages a robust immune response against viruses, while Th2 has an anti-inflammatory effect. Patients with underlying immune dysregulation, resulting in a swing to Th2 dominance, exhibit more diffuse lesions that last longer and resist treatment.<sup>5</sup>

One of the ingredients of Biocidin LSF, *Lentinula edodes* (Shiitake mushroom), has been shown to have immunomodulatory effects through Lentinan, one of its constituent ingredients.<sup>6</sup> Yoshino et al. found the use of Lentinan canceled Th2 dominance, tipping the balance toward Th1. *Lentinula* may also have activity on the cytokines responsible for mediating the Th1/Th2 immune response.<sup>7</sup>

Other ingredients in this herbal formula have related biological activities. Silymarin, a constituent in *Silybum marianum* (milk thistle) has been shown to have antiviral activity against other viruses.<sup>8</sup> Berberine, found in *Hydrastis canadensis* (Goldenseal) has been shown to inhibit the growth of the H1N1 virus.<sup>9</sup> Berberine and Goldenseal found inhibition of the growth of H1N1 influenza A strains PR/8/34 and the ability to inhibit both TNF- $\alpha$  and virus growth, two mechanisms of action (anti-inflammatory and antiviral) that could potentially affect the progression and outcome of MC.<sup>9</sup> *Lavandula officinalis* (lavender oil) has also been shown to enhance wound health. Samuelson et al. found wounds treated with lavender oil healed faster, showed increased collagen expression, and enhanced protein activity in the tissue-remodeling process.<sup>10</sup>

This patient's (and his parent's) quality of life improved dramatically during the short treatment with this herbal preparation and the Erchonia laser. These therapies appear to be safe and well tolerated and were associated with improvement in this patient. More research is needed to determine which patients with MC are likely to benefit from which therapies and at which dose.

## Conclusion

The use of the herbal preparations (Biocidin LSF) and Erchonia laser appears to have resulted in the safe and rapid (6 weeks) resolution of this pediatric case of MC. This case demonstrates a safe and effective example of treatments in a "real world" clinical setting in a pediatric population that might be useful for similar patients. Future studies can help clarify a better understanding of

the mechanisms underlying the improvement noted in this case.

## Patient Perspective (parents)

We noticed immediate results with Biocidin and the Erchonia laser. After the first week his skin/bumps were not as red or inflamed looking and by the second week, some were already disappearing. There were no negative or adverse effects from either treatment.

## Acknowledgements

Elizabeth Kressin, DC, treated this patient at Chiropractic Arts Clinic in Spencer, IA. Dr. Kressin and Dr. Klos-Maki, DC, wrote this case report. David Riley, MD, helped edit this case report. Written informed consent was obtained from the parents and is on file with the authors.

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