

CHAMP Program Educational Case Review  
Mimics of Child Abuse  
November 19, 2014

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- Linda Cahill MD  
Medical Director, Butler CAC Bronx
- Jamie Hoffman-Rosenfeld MD  
Medical Director, Queens CAC
- Lori Legano MD  
Bellevue Hospital NYU
- Ann Lenane MD  
Medical Director, REACH Program Rochester
- Alicia Pekarsky MD  
Golisano Children's Hospital Syracuse

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Case 1

Linda Cahill, MD  
JE and ZB Butler Child Advocacy Center  
Children's Hospital at Montefiore  
Bronx, NY

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Inhaler Burn

- 1,1,1,2-tetrafluoroethane (4F2C2H) a propellant with a boiling (vaporization) point of -26.3C, is a hydrofluoroalkane (HFA) compound used in aerosol inhalers since 2009 because it does not deplete the ozone layer. (It does contribute to global warming....)
- Under pressure in an inhaler canister, 4F2C2H is compressed into a liquid.
- **Proper use:** Medication suspended in the propellant is delivered to the respiratory tract through the inhaler
- **Misuse:** On repeated, close contact with the skin, tiny liquid droplets evaporate, absorbing thermal energy (heat) from the skin resulting in frostbite.

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### References

- Bonniaud P, Georges M, Blanc-Caille M, Collet E, Camus P. Salbutamol inhaler misuse resulting in skin burn. J Allergy Clin Immunol 2011: 127, 295
- Arun B, Jacob J, Byrne JP. An Uncommon Burn. British J Dermatology 2009: 160, 197

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### Case 2

Ann Lenane, MD  
Medical Director,  
REACH Program  
Rochester, NY

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### Lichen Sclerosis

- Unknown etiology
- Skin has thinning/ "white color"
- Effects pre-pubertal children and post menopausal women (bimodal)
- Symptoms include itching, dysuria, pain, bruising, bleeding
- Can be mistaken for child sexual abuse
- Treatment is topical steroids (high dose by dermatologist or gynecologist)

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**Case 3**

Alicia Pekarsky, MD  
 Co-Medical Director: CARE Program  
 Upstate Golisano Children’s Hospital  
 McMahon Ryan Child Advocacy Center  
 Syracuse, NY

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**Frequently Asked Questions  
 about Lichen Sclerosis**

- Is this associated with sexual abuse?
- Do you need to refer to a dermatologist?
- What other treatments are available?
- Can you get this in boys?

Ann S. Botash, MD  
 Co-Medical Director: CARE Program  
 Upstate Golisano Children’s Hospital  
 McMahon Ryan Child Advocacy Center  
 Syracuse, NY

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**Is LS Associated with Sexual Abuse?**

- Genetic factors
- Local factors (skin graft developed LS)
- Immunologic factors (associated with Autoimmune diseases)
- Hormonal factors
- **Cell kinetics** – An elastase-type enzyme produced by vulvar fibroblasts may lead to the destruction of connective tissue in patients with LS
- **Trauma—Köbner phenomenon**

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### Referral?

“The diagnosis of vulvar LS is based upon the presence of characteristic clinical manifestations, ideally with histological confirmation. We perform a 3 mm vulvar punch biopsy both to confirm the diagnosis, and to document whether atypical histological features are present.”

UptoDate, accessed 11/18/14; Vulvar LS, Elizabeth Gunther Stewart

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### Other Treatments?

- Relieve pruritis and pain if symptomatic
- Superpotent topical steroids—even if asymptomatic: clobetasol .05% at night x6-12 weeks—tapered discontinuation
- Intralesional triamcinolone
- Progesterone or testosterone
- Retinoids
- Tacrolimus\*--Hengge, Krause, et al. Multicentre, Phase II trial on the safety and efficacy of topical tacrolimus ointment for the treatment of lichen sclerosis. British Journal of Dermatology 2006 155, pp1021–1028
- Phototherapy

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### LS in Boys

Systematic studies have shown that 10% to 40% of all surgically treated cases of phimosis are due to LS.

Becker K. Lichen sclerosis in boys. Dtsch Arztebl Int 2011; 108(4): 53–8

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### Case 4

Ann Lenane, MD  
Medical Director REACH Program  
Rochester

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### Vulvovaginitis

- Contact
  - Soap, “tight” clothing, irritants, etc
- Hygiene
- Infections
  - STI’s, Candida, Pinworms, Gardnerella vaginalis, Group A Streptococcus
- Trauma

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### Group A Strep Vulvovaginitis

- Ages 3-10 years
- Not usually accompanied by pharyngitis
- Does not seem to be associated with child sexual abuse
- Treat with 10 day course of oral antibiotics appropriate for Group A Streptococcus

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### Case 5

Lori Legano, MD  
Bellevue Hospital  
New York University

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### Key Points about Unusual Findings (Tight Sock Finding)

- The parental history may be accurate sometimes.
- It is helpful to reenact the scenario described by the parent.

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### Reference

Anderst, James D, et al. Evaluation for bleeding disorders in suspected child abuse. 2013; 131; e1314.

The online version of this article, along with updated information and services, is available at

<http://pediatrics.aappublications.org/content/131/4/e1314.full.html>

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Case 5

Ann Botash, MD  
Co-Medical Director: CARE Program  
Upstate Golisano Children's Hospital  
McMahon Ryan Child Advocacy Center  
Syracuse, NY

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Cases 6 & 7

Jamie Hoffman-Rosenfeld, MD  
Medical Director, Queens CAC

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Key Points for Molluscum Contagiosum

- Skin findings can be confusing particularly for nonmedical professionals such as educators/school officials.
- School officials are on the front lines but may be unable to interpret what they see on their students.
- A complete skin examination should be performed when genital lesions are noted.

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### Important Facts

- Molluscum contagiosum results in raised, round, flesh-colored bumps on the skin. It is a poxvirus. The bumps:
  - Are small — typically under about a quarter inch (approximately 2 to 5 millimeters) in diameter
  - Characteristically have a small indentation or dot at the top
  - Can become red and inflamed
  - Can be easily removed by scratching or rubbing, which can spread the virus to adjacent skin (incubation is 2-6 weeks)
- In children, the bumps typically appear on the face, neck, armpits, hands and arms.
- Inflammation can be a sign of regression and not necessarily infection.

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### Treatment of Molluscum

- Observe
- Podophyllotoxin
- Cryotherapy (liquid nitrogen)
- Cantharidin –blistering agent
- Curettage
- Imiquimod
- KOH
- Salicylic acid
- Topical retinoids
- Oral cimetidine

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### Summary

- Evaluations for child abuse require careful examination to rule out other medical or accidental causes of disease.
- Skin diseases and injuries can present as child abuse mimics.
- A complete skin examination is important in the examination of suspected child abuse.

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