

## UPCOMING MEETINGS

Noah Worcester Dermatological Society

European Academy of Dermatology and Venereology

American Society for Mohs Surgery

11th World Congress on Cancers of the Skin

We Are There For You

## Port-Wine Stain Surgery Safe In Pediatric Procedure Room

BY PATRICE WENDLING  
Chicago Bureau

MIAMI BEACH — Laser surgery with intravenous deep sedation can be performed safely in a pediatric procedure room rather than an operating room when treating congenital vascular stains, Dr. Elizabeth Alvarez Connelly said in a poster presentation at the annual Masters

of Pediatrics conference sponsored by the University of Miami.

Pulsed dye lasers are considered the standard for the treatment of congenital vascular stains in young children, but one of the greatest challenges in their use is maintaining an adequate comfort level throughout the multiple treatment sessions needed.

Children are traditionally treated under gas anesthesia in the OR, but repeat sessions can be costly for all parties and stressful to the patient and family, said Dr. Connelly, a pediatric dermatologist at the University of Miami.

Laser surgery in pediatric procedure rooms does not require a sterile environment or a clearance visit by a pediatrician or anesthesiologist and allows clinicians to treat a large surface area during one laser session. The average time from start to patient release is about 2 hours, compared with 4-6 hours for OR-based treatments.

"For new parents, it's wonderful because they can come in to the procedure room and are there during the [intravenous line placement] and when they leave they can see that the child is asleep and comfortable," she said in an interview. "For the child, they don't even notice the parent was gone. It's just so much easier on everyone."

Dr. Connelly and colleagues presented a case series of 15 children with port-wine stains larger than 10 cm<sup>2</sup> who received laser surgery in a pediatric procedure room separate from the main operating suite, with sedation provided by a nurse practitioner and pediatric intensivist. Ethyl chloride spray was used prior to intravenous line insertion and intravenous propofol (Diprivan)/fentanyl or ketamine was dosed based on weight.

The patients received an average of three to four treatments with a 595-nm pulsed dye laser (Candela VBeam) at a fluence of 7.5-9.5 J/cm<sup>2</sup>, pulse duration of 1.5 milliseconds, and 7-mm spot size.

Lightening of individual port wine stains was observed in all patients after each treatment. The only side effect, purpura, developed in all of the children treated and lasted for 10-14 days, which is the natural course following laser therapy, Dr. Connelly said.

There were no adverse reactions to the anesthesia. No intubations or overnight hospitalizations were required.

Without expensive OR costs, there was a 50%-70% cost savings per laser procedure, said Dr. Connelly, who acknowledged that a formal cost analysis was not performed.

When moving laser treatments from the OR to a pediatric procedure room, ensure that preoperative fluids are restricted based on age; properly sized safety equipment is readily available; and all patients are watched carefully for signs of nausea, vomiting, or fever prior to discharge, she said.

Dr. Connelly added that she has no relevant financial relationship with Candela Corp. ■

# 69051  
Rev.: 04/06Locoid Lipocream®  
(hydrocortisone butyrate 0.1%)  
Cream

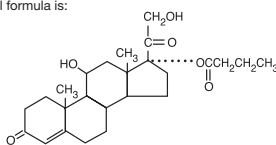
## For Dermatological Use Only

## DESCRIPTION

Locoid Lipocream® Cream contains the topical corticosteroid hydrocortisone butyrate, a hydrocortisone ester.

It has the chemical name: (11β)-11,21-dihydroxy-17-[(1-oxobutyl)oxy]-pregn-4-ene-3,20-dione; the molecular formula: C<sub>25</sub>H<sub>36</sub>O<sub>6</sub>; the molecular weight: 432.54; and the CAS registry number: 13609-67-1.

The structural formula is:



Each gram of Locoid Lipocream® Cream contains 1 mg of hydrocortisone butyrate in a hydrophilic base consisting of cetostearyl alcohol, ceteth-20, mineral oil, white petrolatum, citric acid, sodium citrate, propylparaben and butylparaben (preservatives) and purified water.

## CLINICAL PHARMACOLOGY

Topical corticosteroids share anti-inflammatory, anti-pruritic and vasoconstrictive actions.

The mechanism of anti-inflammatory activity of topical corticosteroids is unclear. Various laboratory methods, including vasoconstrictor assays, are used to compare and predict potencies and/or clinical efficacies of topical corticosteroids. There is some evidence to suggest that a recognizable correlation exists between vasoconstrictor potency and therapeutic efficacy in man.

## PHARMACOKINETICS

The extent of percutaneous absorption of topical corticosteroids is determined by many factors including the vehicle, the integrity of the epidermal barrier, and the use of occlusive dressings.

Topical corticosteroids can be absorbed from normal intact skin. Inflammation and/or other disease processes in the skin increase percutaneous absorption. Occlusive dressings or widespread application may increase the possibility of hypothalamic-pituitary-adrenal (HPA) axis suppression.

The vasoconstrictor assay showed that Locoid Lipocream® Cream had a more pronounced skin blanching effect than Locoid® Cream, suggesting greater percutaneous absorption from the former. At the present time, no adequate HPA axis suppression studies have been conducted for Locoid Lipocream® Cream.

Once absorbed through the skin, topical corticosteroids are handled through pharmacokinetic pathways similar to systemically administered corticosteroids.

Corticosteroids are bound to plasma proteins in varying degrees.

Corticosteroids are metabolized primarily in the liver and are then excreted by the kidneys. Some of the topical corticosteroids and their metabolites are also excreted into the bile.

## INDICATIONS AND USAGE

Locoid Lipocream® (hydrocortisone butyrate 0.1%) Cream is indicated for the relief of the inflammatory and pruritic manifestations of corticosteroid-responsive dermatoses.

## CONTRAINDICATIONS

Topical corticosteroids are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparation.

## PRECAUTIONS

## General

Systemic absorption of topical corticosteroids has produced reversible HPA axis suppression, manifestations of Cushing's syndrome, hyperglycemia, and glucosuria in some patients. Conditions which increase the risk of systemic toxicity include the application of more potent steroids, use over large surface areas, prolonged use, and the addition of occlusive dressings. Children may absorb proportionally larger amounts of topical corticosteroids and thus be more susceptible to systemic toxicity. (See PRECAUTIONS - PEDIATRIC USE.)

If irritation develops, topical corticosteroids should be discontinued and appropriate therapy instituted. In the presence of dermatological infections, the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

## Information for the Patient

Patients using topical corticosteroids should receive the following information and instructions:

1. This medication is to be used as directed by the physician. It is for external use only. Avoid contact with the eyes.
2. Patients should be advised not to use this medication for any disorder other than for which it was prescribed.
3. The treated skin area should not be bandaged or otherwise covered or wrapped as to be occlusive.
4. Patients should report any signs of local adverse reactions.
5. Parents of pediatric patients should be advised not to use tight-fitting diapers or plastic pants on a child being treated in the diaper area, as these garments may constitute occlusive dressings.

## Laboratory Tests

The following tests may be helpful in evaluating the HPA axis suppression:  
Urinary free cortisol test  
ACTH stimulation test

## Carcinogenesis, Mutagenesis, and Impairment of Fertility

Long-term animal studies have not been performed to evaluate the carcinogenic potential or the effect on fertility of topical corticosteroids.

Studies to determine mutagenicity in Salmonella typhimurium strains TA98, TA100, and TA92 with prednisolone and hydrocortisone have revealed negative results.

## Pregnancy: Teratogenic Effects: Pregnancy Category C:

Corticosteroids are generally teratogenic in laboratory animals when administered systemically at relatively low dosage levels. Some corticosteroids have been shown to be teratogenic after dermal application in laboratory animals.

In teratogenicity studies, topical administration of 1% or 10% hydrocortisone butyrate in an ointment to pregnant Wistar rats (gestational days 6-15) or New Zealand white rabbits (gestational days 6-18) resulted in no teratogenic findings. However, a dose-dependent increase in fetal resorptions was reported in rabbits, and fetal resorptions were observed in rats treated with 10% hydrocortisone butyrate.

The doses given to rats are approximately 8 to 80 times the human topical dose based on a body surface area comparison (assuming 100% absorption).

For rabbits, the doses given were approximately 0.2 and 2 times the human topical dose. Increased resorptions were also noted in Wistar rats given subcutaneous administrations of hydrocortisone butyrate (9 mg/kg/day; 3 times the human topical dose) on gestational days 9 through 15. In CS mice given subcutaneous administrations of 1 mg/kg/day (0.2 times the human topical dose), an increased number of cervical ribs and one fetus with clubbed legs was reported.

There are no adequate and well-controlled studies in pregnant women on teratogenic effects from topically applied corticosteroids. Therefore, topical corticosteroids should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Locoid Lipocream® (hydrocortisone butyrate 0.1%) Cream should not be used extensively on pregnant patients, in large amounts, or for longer than two weeks.

## Nursing Mothers

It is not known whether topical administration of corticosteroids could result in sufficient systemic absorption to produce detectable quantities in breast milk.

Systemically administered corticosteroids are secreted into breast milk in quantities not likely to have a deleterious effect on the infant. Nevertheless, caution should be exercised when topical corticosteroids are administered to a nursing woman.

## Pediatric Use

Safety and effectiveness in pediatric patients have not been established.

*Pediatric patients may demonstrate greater susceptibility to topical corticosteroid-induced HPA axis suppression and Cushing's syndrome than mature patients because of a larger skin surface area to body weight ratio.*

HPA axis suppression, Cushing's syndrome, and intracranial hypertension have been reported in children receiving topical corticosteroids.

Manifestations of adrenal suppression in children include linear growth retardation, delayed weight gain, low plasma cortisol levels, and absence of response to ACTH stimulation.

Manifestations of intracranial hypertension include bulging fontanelles, headaches, and bilateral papilledema.

Chronic corticosteroid therapy may interfere with the growth and development of children.

## ADVERSE REACTIONS

The following local adverse reactions are reported infrequently with topical corticosteroids but may occur more frequently with the use of occlusive dressings. These reactions are listed in an approximate decreasing order of occurrence: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae and miliaria.

## OVERDOSAGE

Topically applied corticosteroids can be absorbed in sufficient amounts to produce systemic effects. (See PRECAUTIONS.)

## DOSAGE AND ADMINISTRATION

Locoid Lipocream® (hydrocortisone butyrate 0.1%) Cream should be applied to the affected areas as a thin film two or three times daily (depending on the severity of the condition) and for no longer than two weeks. If an infection develops, appropriate antimicrobial therapy should be instituted.

## HOW SUPPLIED

Locoid Lipocream® (hydrocortisone butyrate 0.1%) Cream is supplied in tubes containing:

15 g	NDC 0496-0821-15
45 g	NDC 0496-0821-45
60 g	NDC 0496-0821-25

## STORAGE

Store at controlled temperature between 59° - 77°F (15° - 25°C).

## Rx Only.



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