

# Injectable Silicone Called a Safe, Elegant Filler

BY NANCY MELVILLE  
Contributing Writer

ANAHEIM, CALIF. — Liquid injectable silicone can be a highly effective means of tissue augmentation, especially for acne scarring and HIV-related lipoatrophy, Derek Jones, M.D., said at a cosmetic dermatology seminar sponsored by the Skin Disease Education Foundation.

"This can be an ideal filler that is long lasting and cosmetically elegant," said Dr.

Jones of the department of dermatology at the University of California, Los Angeles.

A "wealth of anecdotal data" indicates that liquid injectable silicone is safe and effective, but the following critical rules are key to its safe usage, he said:

► Use only pure, Food and Drug Administration-approved, injectable-grade liquid silicone; in the United States that means only Silikon-1000, made by Alcon Laboratories. The product has FDA approval for intraocular injection to treat

retinal detachment, but it may be legally used off label, under the 1997 FDA modernization act that allowed medical devices to be used off label.

It's important to note, however, that the law prohibits advertisement of off-label uses, and malpractice insurance carriers have different policies regarding such uses. ► Adhere to a strict serial puncture microdroplet technique, defined as 0.01 cc injected into the immediate subdermal plane or deeper at 2- to 4-mm intervals,

with no double pass in the same plane. Intradermal injection should be strongly avoided except among the most skilled practitioners.

The technique is necessary to allow a fibroproliferative response that develops around each microdroplet between treatments, not only causing each droplet to become anchored and less likely to drift but contributing to further augmentation, Dr. Jones said.

"This is an oil, and if you inject a lot all at once, it's like throwing olive oil on the floor—it's going to spread out and track tissue planes along the path of least resistance," he said. "But the microdroplet technique addresses this problem."

► Inject only small volumes—2 cc or less for lipoatrophy, or 0.5 cc or less for other indications. "Avoid the temptation to use larger volumes," Dr. Jones said, adding that injections should be spread out at intervals of at least 4 weeks.

In addition to these three critical rules, important considerations for silicone use include informing patients that liquid injectable silicone is permanent, and that its use is still investigational and likely to remain so for years. And, while patients can resume a normal routine immediately, they are advised to avoid activities that could predispose them to blunt trauma.

Dr. Jones demonstrated the injection technique on a patient with HIV-related facial lipoatrophy at the conference and said that most patients are highly pleased with the results.

Liquid silicone injections "really give an extraordinarily natural-looking correction," he said. "When you touch the cheeks of these individuals, they feel nice, soft, and supple, and the injections really can restore subtle and refined facial contours."

The SDEF and this newspaper are wholly owned subsidiaries of Elsevier. ■

## Luxiq® (betamethasone valerate) Foam, 0.12%

BRIEF SUMMARY For Dermatologic Use Only Not for Ophthalmic Use

**INDICATIONS AND USAGE** Luxiq is a medium potency topical corticosteroid indicated for relief of the inflammatory and pruritic manifestations of corticosteroid-responsive dermatoses of the scalp. **CONTRAINDICATIONS** Luxiq is contraindicated in patients who are hypersensitive to betamethasone valerate, to other corticosteroids, or to any ingredient in this preparation. **PRECAUTIONS** **General:** Systemic absorption of topical corticosteroids has caused reversible hypothalamic-pituitary-adrenal (HPA) axis suppression with the potential for glucocorticosteroid insufficiency after withdrawal of treatment. Manifestations of Cushing's syndrome, hyperglycemia, and glucosuria can also be produced in some patients by systemic absorption of topical corticosteroids while on treatment. Conditions which augment systemic absorption include the application of the more potent steroids, use over large surface areas, prolonged use, and the addition of occlusive dressings. Therefore, patients applying a topical steroid to a large surface area or to areas under occlusion should be evaluated periodically for evidence of HPA axis suppression. If HPA axis suppression is noted, an attempt should be made to withdraw the drug, to reduce the frequency of application, or to substitute a less potent steroid. Recovery of HPA axis function is generally prompt upon discontinuation of topical corticosteroids. Infrequently, signs and symptoms of glucocorticosteroid insufficiency may occur requiring supplemental systemic corticosteroids. For information on systemic supplementation, see prescribing information for those products. Pediatric patients may be more susceptible to systemic toxicity from equivalent doses due to their larger skin surface to body mass ratios. (See **PRECAUTIONS-Pediatric Use**.) If irritation develops, Luxiq should be discontinued and appropriate therapy instituted. Allergic contact dermatitis with corticosteroids is usually diagnosed by observing a failure to heal rather than noting a clinical exacerbation, as with most topical products not containing corticosteroids. Such an observation should be corroborated with appropriate diagnostic patch testing. 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, use of Luxiq should be discontinued until the infection has been adequately controlled. **Information for Patients:** 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. This medication should not be used for any disorder other than that for which it was prescribed. 3. The treated scalp area should not be bandaged or otherwise covered or wrapped so as to be occlusive unless directed by the physician. 4. Patients should report to their physician any signs of local adverse reactions. 5. As with other corticosteroids, therapy should be discontinued when control is achieved. If no improvement is seen within 2 weeks, contact the physician. **Laboratory Tests:** The following tests may be helpful in evaluating patients for HPA axis suppression: ACTH stimulation test; A.M. plasma cortisol test; Urinary free cortisol 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 betamethasone valerate. Betamethasone was genotoxic in the *in vitro* human peripheral lymphocyte chromosome aberration assay with metabolic activation and in the *in vivo* mouse bone marrow micronucleus assay. **Pregnancy Category C:** Corticosteroids have been shown to be 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. There are no adequate and well-controlled studies in pregnant women. Therefore, Luxiq should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. Drugs of this class should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. **Nursing Mothers:** Systemically administered corticosteroids appear in human milk and could suppress growth, interfere with endogenous corticosteroid production, or cause other untoward effects. It is not known whether topical administration of corticosteroids could result in sufficient systemic absorption to produce detectable quantities in breast milk. Because many drugs are excreted in human milk, caution should be exercised when Luxiq is administered to a nursing woman. **Pediatric Use:** Safety and effectiveness in pediatric patients have not been established. Because of a higher ratio of skin surface area to body mass, pediatric patients are at a greater risk than adults of HPA axis suppression and Cushing's syndrome when they are treated with topical corticosteroids. They are therefore also at greater risk of adrenal insufficiency during and/or after withdrawal of treatment. Adverse effects including striae have been reported with inappropriate use of topical corticosteroids in infants and children. Hypothalamic-pituitary-adrenal (HPA) axis suppression, Cushing's syndrome, linear growth retardation, delayed weight gain, and intracranial hypertension have been reported in children receiving topical corticosteroids. Manifestations of adrenal suppression in children include low plasma cortisol levels and an absence of response to ACTH stimulation. Manifestations of intracranial hypertension include bulging fontanelles, headaches, and bilateral papilledema. Administration of topical corticosteroids to children should be limited to the least amount compatible with an effective therapeutic regimen. Chronic corticosteroid therapy may interfere with the growth and development of children. **ADVERSE REACTIONS** The most frequent adverse event was burning/itching/stinging at the application site; the incidence and severity of this event were as follows:

Product	Incidence and severity of burning/itching/stinging			
	Total incidence	Maximum severity		
		Mild	Moderate	Severe
Luxiq Foam n=63	34 (54%)	28 (44%)	5 (8%)	1 (2%)
Betamethasone valerate lotion n=63	33 (52%)	26 (41%)	6 (10%)	1 (2%)
Placebo Foam n=32	24 (75%)	13 (41%)	7 (22%)	4 (12%)
Placebo Lotion n=30	20 (67%)	12 (40%)	5 (17%)	3 (10%)

Other adverse events which were considered to be possibly, probably, or definitely related to Luxiq occurred in 1 patient each; these were paresthesia, pruritus, acne, alopecia, and conjunctivitis. The following additional local adverse reactions have been reported with topical corticosteroids, and they may occur more frequently with the use of occlusive dressings. These reactions are listed in an approximately decreasing order of occurrence: irritation; dryness; folliculitis; acneiform eruptions; hypopigmentation; perioral dermatitis; allergic contact dermatitis; secondary infection; skin atrophy; striae; and miliaria. Systemic absorption of topical corticosteroids has produced reversible hypothalamic-pituitary-adrenal (HPA) axis suppression, manifestations of Cushing's syndrome, hyperglycemia, and glucosuria in some patients. **OVERDOSAGE** Topically applied Luxiq can be absorbed in sufficient amounts to produce systemic effects. (See **PRECAUTIONS**) **DOSAGE AND ADMINISTRATION** Note: For proper dispensing of foam, can must be inverted. For application to the scalp invert can and dispense a small amount of Luxiq onto a saucer or other cool surface. Do not dispense directly onto hands as foam will begin to melt immediately upon contact with warm skin. Pick up small amounts of foam with fingers and gently massage into affected area until foam disappears. Repeat until entire affected scalp area is treated. Apply twice daily, once in the morning and once at night. As with other corticosteroids, therapy should be discontinued when control is achieved. If no improvement is seen within 2 weeks, reassessment of the diagnosis may be necessary. Luxiq should not be used with occlusive dressings unless directed by a physician. **HOW SUPPLIED** Luxiq is supplied in 150 gram (NDC 63032-021-01), 100 gram (NDC 63032-021-00) and 50 gram (NDC 63032-021-50) aluminum cans. Store at controlled room temperature 68-77°F (20-25°C). **WARNING FLAMMABLE. AVOID FIRE, FLAME OR SMOKING DURING AND IMMEDIATELY FOLLOWING APPLICATION.** Keep out of reach of children. Contents under pressure. Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 120°F (49°C).

Manufactured for: Connetics Corporation, Palo Alto, CA 94303 USA

For additional information: 1-877-821-5337 or visit www.luxiq.com

© 2005 Connetics Corporation PRM-LUXI-122-R1 5/05

R<sub>x</sub>only

## OLUX® Foam, 0.05% (clobetasol propionate)

BRIEF SUMMARY For Dermatologic Use Only Not for Ophthalmic Use

**INDICATIONS AND USAGE** OLUX Foam is a super-potent topical corticosteroid indicated for short-term topical treatment of the inflammatory and pruritic manifestations of moderate to severe corticosteroid-responsive dermatoses of the scalp, and for short-term topical treatment of mild to moderate plaque-type psoriasis of non-scalp regions excluding the face and intertriginous areas. Treatment beyond 2 consecutive weeks is not recommended and the total dosage should not exceed 50 g per week because of the potential for the drug to suppress the hypothalamic-pituitary-adrenal (HPA) axis. In a controlled pharmacokinetic study, some subjects experienced reversible suppression of the adrenals following 14 days of OLUX Foam therapy (See **ADVERSE REACTIONS**). Use in children under 12 years of age is not recommended. **CONTRAINDICATIONS** OLUX Foam is contraindicated in patients who are hypersensitive to clobetasol propionate, to other corticosteroids, or to any ingredient in this preparation. **PRECAUTIONS** **General:** Clobetasol propionate is a super-potent topical corticosteroid that has been shown to suppress the adrenals at 7.0 g of OLUX Foam per day. Lesser amounts of OLUX Foam were not studied. Systemic absorption of topical corticosteroids has caused reversible adrenal suppression with the potential for glucocorticosteroid insufficiency after withdrawal of treatment. Manifestations of Cushing's syndrome, hyperglycemia, and glucosuria can also be produced in some patients by systemic absorption of topical corticosteroids while on treatment. Conditions which augment systemic absorption include the application of more potent steroids, use over large surface areas, prolonged use, and the addition of occlusive dressings. Patients applying a topical steroid to a large surface area or to areas under occlusion should be evaluated periodically for evidence of adrenal suppression. If adrenal suppression is noted, an attempt should be made to withdraw the drug, to reduce the frequency of application, or to substitute a less potent steroid. Recovery of HPA axis function is generally prompt upon discontinuation of topical corticosteroids. Infrequently, signs and symptoms of glucocorticosteroid insufficiency may occur requiring supplemental systemic corticosteroids. For information on systemic supplementation, see prescribing information for those products. Pediatric patients may be more susceptible to systemic toxicity from equivalent doses due to their larger skin surface to body mass ratios. (See **PRECAUTIONS-Pediatric Use**.) If irritation develops, OLUX Foam should be discontinued and appropriate therapy instituted. Allergic contact dermatitis with corticosteroids is usually diagnosed by observing a failure to heal rather than by noting a clinical exacerbation, as with most topical products not containing corticosteroids. Such an observation should be corroborated with appropriate diagnostic patch testing. 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, use of OLUX Foam should be discontinued until the infection has been adequately controlled. **Information for Patients:** Patients using topical corticosteroids should receive the following information and instructions: 1. This medication is to be used as directed by the physician and should not be used longer than the prescribed time period. It is for external use only. Avoid contact with the eyes. 2. This medication should not be used for any disorder other than that for which it was prescribed. 3. The treated area should not be bandaged or otherwise covered or wrapped so as to be occlusive unless directed by the physician. 4. Patients should report to their physician any signs of local adverse reactions. **Laboratory Tests:** The following tests may be helpful in evaluating patients for adrenal suppression: ACTH stimulation test; A.M. plasma cortisol test; urinary free cortisol test. **Carcinogenesis, Mutagenesis, and Impairment of Fertility:** Long-term animal studies have not been performed to evaluate the carcinogenic potential of clobetasol propionate. Clobetasol propionate was non-mutagenic in three different test systems: the Ames test, the *Saccharomyces cerevisiae* gene conversion assay, and the *E. coli* WPM2 fluctuation test. Studies in the rat following subcutaneous administration of clobetasol propionate at dosage levels up to 0.05 mg/kg per day revealed that the females exhibited an increase in the number of resorbed embryos and a decrease in the number of living fetuses at the highest dose. **Pregnancy: Teratogenic Effects: Pregnancy Category C:** Corticosteroids have been shown to be teratogenic in laboratory animals when administered systemically at relatively low dosage levels. Some corticosteroids have been shown to be teratogenic after dermal application to laboratory animals. Clobetasol propionate has not been tested for teratogenicity by the topical route; however, it is absorbed percutaneously, and when administered subcutaneously, it was a significant teratogen in both the rabbit and the mouse. Clobetasol propionate has greater teratogenic potential than steroids that are less potent. Teratogenicity studies in mice using the subcutaneous route resulted in fetotoxicity at the highest dose tested (1 mg/kg) and teratogenicity at all dose levels tested down to 0.03 mg/kg. These doses are approximately 1.4 and 0.04 times, respectively, the human topical dose of OLUX based on body surface area comparisons. Abnormalities seen included cleft palate and skeletal abnormalities. In rabbits, clobetasol propionate was teratogenic at doses of 0.003 and 0.01 mg/kg. These doses are approximately 0.02 and 0.05 times, respectively, the human topical dose of OLUX based on body surface area comparisons. Abnormalities seen included cleft palate, cranioschisis, and other skeletal abnormalities. There are no adequate and well-controlled studies of the teratogenic potential of clobetasol propionate in pregnant women. OLUX Foam should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. **Drugs of this class should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. Nursing Mothers:** Systemically administered corticosteroids appear in human milk and could suppress growth, interfere with endogenous corticosteroid production, or cause other untoward effects. It is not known whether topical administration of corticosteroids could result in sufficient systemic absorption to produce detectable quantities in breast milk. Because many drugs are excreted in human milk, caution should be exercised when OLUX Foam is administered to a nursing woman. **Pediatric Use:** Safety and effectiveness of OLUX Foam in pediatric patients have not been established; therefore, use in children under 12 years of age is not recommended. Because of a higher ratio of skin surface area to body mass, pediatric patients are at a greater risk than adults of adrenal suppression and Cushing's syndrome when they are treated with topical corticosteroids. Pediatric patients are therefore at greater risk of adrenal insufficiency during and/or after withdrawal of treatment. Adverse effects including striae have been reported with inappropriate use of topical corticosteroids in infants and children. Adrenal suppression, Cushing's syndrome, linear growth retardation, delayed weight gain, and intracranial hypertension have been reported in children receiving topical corticosteroids. Manifestations of adrenal suppression in children include low plasma cortisol levels and an absence of response to ACTH stimulation. Manifestations of intracranial hypertension include bulging fontanelles, headaches, and bilateral papilledema. **Geriatric Use:** Clinical studies of OLUX Foam did not include sufficient numbers of subjects aged 65 and over to determine whether they respond differently from younger subjects. Other reported clinical experience has not identified differences in responses between the elderly and younger patients. In general, dose selection for an elderly patient should be cautious, usually starting at the low end of the dosing range, reflecting the greater frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or other drug therapy. **ADVERSE REACTIONS** In a controlled pharmacokinetic study, 5 of 13 subjects experienced reversible suppression of the adrenals at anytime during the 14 days of OLUX Foam therapy to at least 20% of the body surface area. Of the 13 subjects studied, 1 of 9 with psoriasis were suppressed after 14 days and all 4 of the subjects with atopic dermatitis had abnormal cortisol levels indicative of adrenal suppression at some time after starting therapy with OLUX Foam. OLUX Foam is not indicated for non-scalp atopic dermatitis, as the safety and efficacy of OLUX Foam in non-scalp atopic dermatitis has not been established. Use in children under 12 years of age is not recommended. Systemic absorption of topical corticosteroids has produced reversible adrenal suppression, manifestations of Cushing's syndrome, hyperglycemia, and glucosuria in some patients (see **PRECAUTIONS**). In a controlled clinical trial (188 subjects) with OLUX Foam, in subjects with psoriasis of the scalp, there were no localized adverse reactions reported in the OLUX Foam treated subjects. In two controlled clinical trials (360 subjects) with OLUX Foam in subjects with psoriasis of non-scalp regions, localized adverse events that occurred in the OLUX Foam treated subjects included application site burning (10%), application site dryness (<1%), and other application site reactions (4%). In larger controlled trials with other clobetasol propionate formulations, the most frequently reported local adverse reactions have included burning, stinging, irritation, pruritus, erythema, folliculitis, cracking and fissuring of the skin, numbness of the fingers, skin atrophy, and telangiectasia (all less than 2%). The following additional local adverse reactions have been reported with topical corticosteroids, but they may occur more frequently with the use of occlusive dressings and higher potency corticosteroids such as OLUX Foam. These reactions are listed in an approximate decreasing order of occurrence: dryness, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, striae, and miliaria. **OVERDOSAGE** Topically applied OLUX Foam can be absorbed in sufficient amounts to produce systemic effects. (See **PRECAUTIONS**) **DOSAGE AND ADMINISTRATION** Note: For proper dispensing of foam, hold the can upside down and depress the actuator. OLUX Foam should be applied to the affected area twice daily, once in the morning and once at night. Invert the can and dispense a small amount of OLUX Foam (up to a maximum of a golf-ball-size dollop or one and a half capfuls) into the cap of the can, onto a saucer or other cool surface, or to the lesion, taking care to avoid contact with the eyes. Dispensing directly onto hands is not recommended (unless the hands are the affected area), as the foam will begin to melt immediately upon contact with warm skin. When applying OLUX Foam to a hair-bearing area, move the hair away from the affected area so that the foam can be applied to each affected area. Pick up small amounts with fingertips and gently massage into affected area until the foam disappears. Repeat until entire affected area is treated. Apply the smallest amount possible that sufficiently covers the affected area(s). No more than one and a half capfuls of foam should be used at each application. Do not apply to face or intertriginous areas. OLUX Foam is a super-high-potency topical corticosteroid; therefore, treatment should be limited to 2 consecutive weeks and amounts greater than 50 g/week should not be used. Use in pediatric patients under 12 years of age is not recommended. Unless directed by a physician, OLUX Foam should not be used with occlusive dressings. **HOW SUPPLIED** OLUX Foam is supplied in 100 gram (NDC 63032-031-00) and 50 gram (NDC 63032-031-50) aluminum cans. Store at controlled room temperature 68-77°F (20-25°C). **WARNING FLAMMABLE. AVOID FIRE, FLAME OR SMOKING DURING AND IMMEDIATELY FOLLOWING APPLICATION.** Keep out of reach of children. Contents under pressure. Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 120°F (49°C).

Manufactured for: Connetics Corporation, Palo Alto, CA 94303 USA

For additional information: 1-877-821-5337 or visit www.olux.com

© 2004 Connetics Corporation PRM-OLUX-070 1/04



This HIV patient shows lipoatrophy before his silicone treatment.



Augmentation with injectable silicone gives a natural-looking correction.