

# The Use of Olivamine™-Containing Skin Care Products\* for Morbidly Obese Patients with Lymphedema

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# The Use of Olivamine™-Containing Skin Care Products\* for Morbidly Obese Patients with Lymphedema

## ABSTRACT

Lymphedema is the accumulation of lymphatic fluid in the interstitial tissue, causing swelling. Lymphedema can develop when lymphatic vessels are missing or impaired; or when lymph nodes removed, such as during surgery for cancer. It may develop as a result of surgery, radiation, infection or trauma. Lymphedema may be caused by the weight of a fat apron, the excessive pressure congesting the lymph and blood vessels of the lower abdomen. Patients will note swelling, darkened skin, hardening and thickened abdominal tissue, dryness, fissures, itching, pain, and development of warty growths or ‘papillomatosis’. They may note development of ulcers in the skin folds and in traumatized areas: and inability to get ulcers in the damaged skin to heal.

In our clinic, we see a number of morbidly obese patients with lymphedema. They all report dry, itchy, scaly, painful skin. Clinically, they present with indurated, congested skin, with varying degrees of peau ‘de orange and papillomatosis. This firm, but delicate skin is prone to injury and ulceration, particularly in the creases and around the papillomas. We have found success with the consistent use of Olivamine containing skin care products.

The line of products we use contain Olivamine, a blend of ingredients including antioxidants, amino acids, vitamins, and methylsulfonylmethane. These ingredients help to nourish skin with everything it needs to attain and maintain health. These products soothe the pain and itching, promotes healthy skin at the edge of wounds and ulcerations, thus promoting a healthy epithelial edge for improved wound healing.

We will continue to utilize Olivamine-containing skin care products in our clinic to promote healthy skin, to reduce the risk of sores and ulcerations, and improve quality of life.

## INTRODUCTION

Lymphedema is a chronic condition characterized by edema, which is usually localized in the limbs, trunk and genitalia<sup>1</sup>. The World Health Organization estimates that 45 million people have symptoms associated with lymphedema<sup>2</sup>. Recent literature has focused on the treatment of massive localized lymphedema in morbidly obese patients<sup>3,4,5</sup>. Lymphedema associated with obesity is most commonly localized in the lower limbs and the abdominal pannus<sup>3</sup>. Swelling induces chronic venous insufficiency. Venous return is initially compensated for by the lymphatic system but continual overload results in lymphatic failure and gives rise to venous and lymphatic edema<sup>2</sup>. Localized lymphedema in obese patients results in numerous symptoms associated with skin breakdown. Therefore, managing and understanding the pathology of lymphedema has become increasingly relevant<sup>6,7</sup> and important in improving the quality of life in the morbidly obese.

## PROBLEM

The reduction of lymphatic drainage induces a build up of inflammatory mediators in the skin. The accumulation of immune proteins and cytokines, in addition to venous and lymphatic edema, results in skin/barrier dysfunction<sup>8</sup>. Improper skin/barrier function eventually leads to infection, erythema and dermatitis<sup>9,10</sup>. The outermost layer of the skin, the stratum corneum consists of epidermal cell remnants and metabolically active lipids<sup>11,12,13</sup>. These skin layers require nourishment and protection to reduce problematic symptoms associated with localized lymphedema.

## OBJECTIVE

To determine if a skin care regimen using Olivamine containing skin care products could reduce skin breakdown, pain, odor and pruritus in the morbidly obese with lymphedema.

## METHODOLOGY

Nine morbidly obese patients, with lymphedema, were evaluated over an approximate six month period. The lymphedema presented on the lower extremities or abdominal pannus. Four criteria, including dry/flaky/scaly skin, erythema, fungal component, and maceration along with pain, odor and pruritus were evaluated on an initial physician visit. Final physician evaluations were noted for each patient. All patients were treated in the office and then given Olivamine containing products for self-care. Patient protocols were based on the location of the lymphedema and their symptoms.

## PROTOCOLS

### Macerated and Inflamed Skin

1. Cleanse with Olivamine containing cleansing lotion and then pat dry
2. Spray area with Olivamine containing antimicrobial cleanser
3. Apply Olivamine containing zinc protectant paste
4. Lightly dust area with Olivamine containing antifungal powder or apply Olivamine containing antifungal cream, as indicated

### Dry/Flaky/Scaly Skin

1. Cleanse with Olivamine containing cleansing lotion and then pat dry
2. Spray area with Olivamine containing antimicrobial cleanser
3. Apply a small amount of Olivamine containing nourishing cream
4. Apply Olivamine containing dimethicone/silicone ointment using gentle strokes
5. Lightly dust area with Olivamine containing antifungal powder or apply Olivamine containing antifungal cream, as indicated

Patient	BB	RK	LK	HM	EM	DM	DV	ERW	EW
Age	76	51	87	70	53	41	54	64	77
Sex	F	F	F	M	F	F	M	F	M
Weight	256	390	239	467	270	453	455	255	233
Height	5'1"	5'7"	5'6"	5'11"	5'5"	5'5"	6'2"	5'3"	5'11"
BMI	48	>60	39	>60	45	>60	>60	45	33
Location	Legs	Pannus	Legs	Pannus	Pannus	Pannus	Pannus	Legs	Legs
Lymph Score	2	3	2	3	1	3	3	3	3

## Skin Quality Score Before/After Treatment

Dry/Flaky/Scaly	3/0	3/1	4/0	3/1	3/0	2/0	2/0	1/0	4/0
Erythema	5/1	4/1	4/0	3/1	5/1	5/1	4/0	4/0	5/1
Fungal Overgrowth	4/0	4/0	3/0	1/0	4/0	2/0	4/0	3/0	4/0
Maceration	3/0	4/0	2/0	1/0	5/1	4/0	5/0	4/0	3/0
Odor	4/0	3/0	1/0	1/0	3/0	2/0	3/0	1/0	2/0
Pain	4/0	5/0	3/0	1/0	5/0	5/0	5/0	5/0	4/0
Pruritus	3/0	3/0	5/0	1/0	1/0	2/0	1/0	1/0	3/1
Average Improvement	3.71/0.14	3.71/0.28	3.14/0	1.57/0.28	3.71/0.28	3.14/0.14	3.42/0	2.71/0	3.57/0.28

### Evaluation Score Key

0	Absent
1	Mild
2	Mild-Moderate
3	Moderate
4	Moderate Severe
5	Severe

### Lymphedema Severity

1	Mild (<20% increase)
2	Moderate (20 – 30% increase)
3	Severe (>30% increase)

## CASE STUDY – DV

DV is a 54 year old male weighing 455 pounds with a body mass index greater than 60. He presents with severe localized lymphedema and multiple scaly lesions to the abdominal pannus. He experienced severe skin manifestations including maceration, pain, edema, erythema, and a bacterial infection. He was placed on systemic antibiotics and the Olivamine containing skin care products. DV experienced a significant reduction in skin symptoms after only 8 days. The skin care regimen included cleansing lotion, zinc protectant paste, dimethicone/silicone barrier and the antifungal cream. Over time, the lesions resolved completely, but left him with a darkly discolored, though healthy, abdominal pannus. His chronic symptoms were controlled and his quality of life improved with ongoing use of the Olivamine containing skin care products.



DV at start of treatment 6-14-05



DV 8 days of treatment 6-22-05



DV continued improvement 7-1-05



DV at 11-21-05

## CONCLUSIONS

Eighty nine percent (89%) of the skin breakdown, odor, pain, and pruritus were reduced or completely resolved and maintained for at least six (6) months. In most cases, patients who had experienced painful, chronic symptoms for numerous years drastically improved in a matter of weeks. The Olivamine containing skin care product regimen significantly improved patient quality of life by diminishing the agony that accompanies skin breakdown associated with lymphedema.

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