



Potent corticosteroids escaping regulation and marketed for skin-lightening in ethnic beauty supply stores

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Disclosures

- No conflicts of interest to report.

Background

- Prescription skin lightening agents for hyperpigmentation contain potent topical ingredients regulated by the FDA e.g. corticosteroids, hydroquinone, and retinoids.
- Often unknown and bypass regulation, especially when imported
- Mercury, potent corticosteroids, and hydroquinone reported in products, leading to harmful sequelae.
- This purpose of this report is to help characterize the public health concern of easily accessible, harmful and misleading, unregulated lightening products



Methods

- Data focused on brand name, ingredient, and formulation was collected on lightening products at ethnic beauty supply stores.
- Google Maps was used to identify stores within a 15-mile radius of our dermatology clinic in Chelsea, Massachusetts, and visited in person.



Results

Brand name	Corticosteroid ingredient advertised	Vehicle
La Bamakoise	Betamethasone dipropionate 0.05%	Cream
Beneks Fashion Fair	Clobetasol propionate 0.05%	Gel, cream
Clovate	Clobetasol propionate 0.05%	Cream
Dermovate	Clobetasol propionate 0.05%	Cream
Edguard	Clobetasol propionate 0.05%	Cream
H20 Jours	Betamethasone dipropionate 0.05%	Gel
Janet	Clobetasol propionate 0.05%	Gel, Cream
L'abidjanaise	Betamethasone dipropionate 0.05%	Gel
L'ivorienne	Clobetasol propionate 0.05%	Cream
Lemonvate	Clobetasol propionate 0.05%	Cream
Movate	Clobetasol propionate 0.05%	Cream
Neoprosone gel	Betamethasone dipropionate 0.05%	Gel
Neu Clear	Betamethasone dipropionate 0.065%	Gel
Skin Success Cream	Clobetasol propionate 0.05%	Cream
Topgel	Fluocinonide 0.025%	Gel

Table 1: Sample of brands advertised to contain corticosteroids

Of 10 ethnic beauty stores, all had topical skin lightening products advertising high potency corticosteroids, including betamethasone and clobetasol.

At least three brands were available at each store, with the retail price ranging from \$4.99 to \$12.99 per 30g tube.



Ingredient	Mode of Use	Adverse Effects*	Severe Adverse Reactions	Popular Region found (past and present)
Hydroquinone (2% or 4%)	Topical	Contact dermatitis Exogenous ochronosis Corneal melanosis Conjunctival Hyperpigmentation Nail hyperpigmentation	Peripheral neuropathy Fetal Growth Retardation Fish Odor Syndrome	North America Middle East South Asia Southeast Asia Africa East Asia South America
Class I Steroids (Clobetasol, betamethasone)	Topical	Atrophy Striae Contact Dermatitis Perioral dermatitis Telangiectasias Acne Purpura Folliculitis Hypertrichosis	HPA axis disruption Cushing Syndrome Adrenal insufficiency Diabetes Hypertension Glaucoma and cataracts Steroid Addiction Syndrome	North America Middle East South Asia Southeast Asia Africa East Asia South America
Mercury	Topical	Gastrointestinal discomfort Dermatitis Hyperpigmentation Nail dyspigmentation	Neuropsychiatric toxicity ('mad hatters' disease') Nephrotoxicity Pneumonitis Mercurial baboon syndrome	Middle East South Asia Southeast Asia Africa East Asia
Glutathione	Topical, oral, injectable	Contact dermatitis Cramping, bloating	Hepatic, Neurologic, Renal Toxicity Stevens Johnson Syndrome Air Emboli Thyroid Dysfunction	North America Middle East South Asia Southeast Asia Africa East Asia
Retinoids	Topical, oral	Erythema, peeling Retinoid dermatitis Photosensitivity	Teratogenic, fetal complications Thyroid dysfunction Hepatic toxicity	North America Middle East Africa East Asia Southeast Asia South Asia South America

Cysteamine	Topical	Burning sensation Sulfur Odor Xerosis and irritation		North America South Asia Southeast Asia East Asia
Arbutin 1%	Topical	In alkaline conditions, will hydrolyze into hydroquinone Irritation and erythema Contact dermatitis Paradoxical Hyperpigmentation		North America Middle East South Asia Southeast Asia East Asia South America
Kojic acid 1-4%	Topical	Contact dermatitis Photosensitivity		Middle East South Asia Southeast Asia East Asia South America
Camphor	Topical	Contact Dermatitis Irritation	Neurotoxicity-seizures, vision loss Burns when heated Hepatic toxicity	Middle East South Asia Southeast Asia East Asia Africa
Azelaic Acid	Topical	Contact Dermatitis Burning, Tingling		North America Southeast Asia East Asia Middle East South America
Tranexamic Acid	Oral/ topical	Abdominal Bloating Abdominal Pain Contact Dermatitis (Topical formulation) Alopecia	Vascular Thrombosis Pulmonary Embolism	North America South Asia Southeast Asia East Asia South America Africa

Table 2: Common Skin Lightening Agents, Mode of Use, Adverse, Country of Use



Conclusions

- The sale of illegal skin lightening creams has been identified as an emerging threat by UK consumer protection agency National Trading Standards, cited in their Consumer Harm Report 2018.³
- We intend for this report to help characterize the public health concern of unregulated skin lightening products.
- We hope that dermatologists gain awareness of easily available non-prescription potent corticosteroids and may convey the dangerous and illegal nature of these products to patients.



References

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