

Evaluation the Effect Combination of Medications (Clobetasol Propionate Ointment 30 Gm, Salicylic Acid Ointment 5% 3 Gm, Vaseline and Liquidparaffin 5 Ml) in the Management of Contact Dermatitis

ImadNoamanShareef, *Department of Pharmacology, College of Medicine, Iraq-Tikrit University*

Email: imadnoaman@tu.edu.iq, No: 00964-7705179711

Abstract

The cross sectional investigation was intended with the impact of mix drugs (clobetasol propionate ointment 30 gm, salicylic acid ointment 5% 3 gm, vaseline and liquid paraffin 5 ml) on contact dermatitis topically for 10-15 days once time daily. The investigation was performed on 97 contact dermatitis patients which is determination by dermatologist between 10-49 years (56 females and 41 men) in Tikrit city from January 2019 till November 2019 from salahudeen general hospital. These mix of medications is significantly compelling administration of contact dermatitis in all the these ages.

The aim of this examination has demonstrated significantly the executives of contact dermatitis by mix of medications (clobetasol propionate ointment 30 gm, salicylic acid ointment 5% 3 gm, vaseline and liquid paraffin 5 ml) topically for 10-15 days once time every day.

keywords: Contact dermatitis patients, mix drugs (clobetasol propionate ointment 30 gm, salicylic acid ointment 5% 3 gm, vaseline and fluid paraffin 5 ml).

Introduction

Contact dermatitis is one type of the eczema^(1,2). The contact dermatitis is response of the skin to certain substance⁽³⁾. There are three kinds of contact dermatitis which is allergic contact dermatitis, irritant contact dermatitis and photo contact dermatitis⁽⁴⁾.

Normal reasons for allergic contact dermatitis include: nickel sensitivity, 14K or 18K gold, Balsam of Peru (*Myroxylon pereirae*), chromium⁽⁵⁾, the sleek covering from plants of the sort *Toxicodendron*: poison ivy, poison oak, and toxic substance sumac⁽⁶⁾. The alkyl resorcinols in *Grevillea banksii* and *Grevillea 'Robyn Gordon'* are answerable for contact dermatitis⁽⁵⁾. Bilobol, another alkyl resorcinol found in *Ginkgo biloba* natural products, is additionally a solid skin irritant⁽⁷⁻⁸⁾.

Irritant contact dermatitis (ICD) can be separated into structures brought about by chemical irritant and those brought about by physical irritants⁽⁹⁾.

Basic chemical irritants embroiled include: solvents (liquor, xylene, turpentine, esters, acetone, ketones, and others); metal working liquids (slick oils, water-based metal working liquids with surfactants); latex; lamp fuel; ethylene oxide; surfactants in topical prescriptions and beautifying agents (sodium lauryl sulfate); and soluble bases (channel cleaners, solid cleanser with lye deposits)⁽¹⁰⁾.

Physical irritant contact dermatitis may most normally be brought about by low stickiness from air conditioning⁽⁸⁾. Likewise, numerous plants straightforwardly disturb the skin⁽¹¹⁾.

Photocontact dermatitis (PCD), now and then named "photoaggravated",⁽¹²⁾ and partitioned into two classifications, phototoxic and photoallergic, PCD is the eczematous condition which is activated by a communication between an in any case unarmful or less hurtful substance on the skin and bright light (320–400 nm UVA), consequently showing itself just in locales where the sufferer has been presented to such rays⁽¹³⁾.

The indication of contact dermatitis which rely upon the reason and how delicate to the substance⁽¹⁴⁾. The Symptoms related with hypersensitive contact dermatitis include: dry, textured, flaky skin, hives, overflowing rankles, skin redness, skin that seems obscured or rough, skin that consumes, outrageous tingling, sun affectability, growing, particularly in the eyes, face, or groin areas⁽¹⁵⁾. Irritant contact dermatitis may cause somewhat various manifestations, for example, rankling, splitting skin because of outrageous dryness, expanding, skin that feels solid or tight, ulcerations, open wounds that structure crusts⁽¹⁶⁾. Photocontact dermatitis is less normal. It's a response that can happen when the dynamic fixings in a skin item are presented to the sun and result in irritation⁽¹²⁾.

Clobetasol propionate ointment is a corticosteroid used to treat skin conditions, for example, dermatitis, contact dermatitis, seborrheic dermatitis, and psoriasis. Clobetasol propionate applies its impact by official to cytoplasmic glucocorticoid receptors and thusly initiates glucocorticoid receptor interceded quality articulation. This outcomes in synthesis of certain mitigating proteins, while restraining the combination of certain inflammatory mediators⁽¹⁷⁾. Salicylic acid has a place with a gathering of medicines known as keratolytics⁽¹⁸⁾. Salicylic acid works by softening keratin, a protein that structures some portion of the skin structure. This assists with loosen dry flaky skin making it simpler to remove⁽¹⁹⁾. When salicylic acid is utilized in mix with different prescriptions it removes the upper layer of skin permitting the extra drugs to enter more effectively⁽²⁰⁾. Chemical peeling is a protected, effectual, and financially savvy system for treating different skin issue and for upgrading corrective appearance. The standard of stripping includes controlled compound injury to the skin so as to incite it to restore, prompting smoothening of the skin and improvement of its surface texture⁽²¹⁾, a greasing up film on the skin to forestall consumption of water (transepidermal water misfortune) in the skin's furthest layer, the stratum corneum⁽²²⁾. This may have a defensive impact against irritant contact dermatitis and allergic contact dermatitis, which frequently result from such depletion⁽²³⁾.

Topical vaseline (for the skin) treatment is the name of a famous brand of petroleum jelly. It's a blend of minerals and waxes that are effectively spreadable. Vaseline has been utilized for over 140 years as a mending demulcent and ointment for wounds, consumes, and scraped skin is utilized as a fixing in skin moisturizers and beautifying agents, giving different kinds of healthy skin and assurance by limiting grating or diminishing dampness misfortune, or by working as a prepping aid⁽²⁴⁻²⁵⁾.

Paraffin wax is a white or vapid delicate, strong wax. It's produced using immersed hydrocarbon. Its regularly utilized in skin-relaxing salon and spa medicines on the hands, fingernail skin, and feet. Paraffin wax was different uses, as well. It's regularly utilized as oil, electrical protection, and to make candles and crayons⁽²⁶⁻²⁷⁾.

Material and methods

Perception, prospective investigation of contact skin inflammation who got mix drugs (clobetasol propionate ointment 30 gm, salicylic acid ointment 5% 3 gm, vaseline and liquid paraffin 5 ml) just were done to patients who in Salahudeen General Hospital, the work conveyed from January 2019 to November 2019. Sometime, the sum ointment to utilize is estimated in fingertip units. This is the measure of ointment can crush onto fingertip (the highest point of finger down to the primary twist in the finger). Before utilize these mix must be wash hands, spread the ointment in a thin layer over the region of aggravation skin, cautiously smooth it into skin toward the path that hair develops, not to get the treatment into broken skin, utilize the ointment on all the aggravation skin.

The examination has included 97 patients (41 males and 56 females). This include patients with contact dermatitis who determination by dermatologist. These patients utilize this medication locally once time day by day for 10-15 days.

Data variety included: patients with contact dermatitis, combination drugs is utilized topically.

For applied math investigation of the information, quantitative factors region unit communicated as mean \pm standard deviation (SD) . The student t-test was utilized for the investigation of quantitative variable.

Estimation of $P < 0.05$ were considered statistically significant.

Result

All patients finished the present investigation. The investigation was intended to analyze the adequacy of mix drugs (clobetasol propionate ointment 30 gm, salicylic acid ointment 5% 3 gm, vaseline and liquid paraffin 5 ml) topically on contact dermatitis on various sex once time day by day for 10-15 days in 97 patients (41 males and 56 females).

The impact of the mixes drugs (clobetasol propionate ointment 30 gm, salicylic acid ointment 5% 3 gm, vaseline and liquid paraffin 5 ml) every day for 10-15 days once time day by day on 97 contact dermatitis patients (table 1).

The impact of the mix drugs (clobetasol propionate ointment 30 gm , salicylic acid ointment 5% 3 gm, vaseline and liquid paraffin 5 ml) when day by day on contact dermatitis in regards to the age for 10-15 days. (table 2).

Likewise, there is appearance some reaction as redness.

Tablet 1:-The impact of the mixes drugs (clobetasol propionate ointment 30 gm, salicylic acid ointment 5% 3 gm, vaseline and fluid paraffin 5 ml day by day for 10-15 days once time day by day on 97 contact dermatitis patients.

Number of cases	Number of effective management	Mean with standard deviation
97	76	0.78 \pm 0.66****

**** < 0.1

Table 2:-Effect the blend drugs (clobetasol propionate ointment 30 gm , salicylic acid ointment 5% 3 gm, vaseline and liquid paraffin 5ml) on contact dermatitis patients for 10-15 days regarding to the age.

No. of cases regarding to the age	Number of cases	Number of effective management	Mean standard deviation
10-19	19	14	0.73 \pm 0.51***
20-29	27	24	0.88 \pm 0.11****
30-39	30	23	0.76 \pm 0.24****
40-49	21	15	0.71 \pm 0.54***

* P < 0.005

** p < 0.01

*** < 0.05

**** < 0.1

Discussion

The clobetasol propionate ointment is well build up in the treatment of contact dermatitis. Topical steroids are broadly utilized in different dermatological conditions. The measure of steroids utilized is relatively more and the reactions are additionally high. The broad and delayed utilization of steroids may likewise deliver drying of the skin. This can be limited by expansion of other part to the steroid. The mix of clobetasol propionate with a lotion is that treatment of a dry layered dermatoses may add to by and large clinical improvement⁽²⁸⁾.

This blend of steroids and other part have been end up being valuable in different dermatological conditions, for example, atopic dermatitis. In atopic dermatitis, the dry skin has reduced water-restricting limit, higher transepidermal water misfortune, and diminished water content contrasted and ordinary skin and it might compound dermatitis. The level of epidermal hydration can straight forwardly influence the infiltration of steroids through the skin⁽²⁹⁾.

Conclusion

The examination was recorded the compelling administration from contact dermatitis by mix drugs (Clobetasol propionate ointment 30 gm, salicylic acid ointment 5% 3 gm, vaseline and liquid paraffin 5 ml) topically. From this examination, we infer that the steroid in mix with other emollient is treatment of dry scale and significantly.

References:-

- 1-Mowad, CM. "Contact Dermatitis: Practice Gaps and Challenges". *Dermatologic Clinics*. 2016; 34 (3): 263–7.
- 2- Kimber I, Basketter DA, Gerberick GF, Dearman RJ. "Allergic contact dermatitis". *Int. Immunopharmacol*. 2002; 2 (2–3): 201–11.
- 3- Hristakieva, E.; Gancheva, D.; Gancheva, T. "Contact dermatitis in patient with chronic venous insufficiency". *Trakia Journal of Science*. 2014; 12 (3): 245–249.
- 4- "Photocontact Dermatitis". www.skinchannel.com. Retrieved 31 March 2011.
- 5- "Balsam of Peru contact allergy". *DermNet NZ*. Retrieved 2014-04-17.
- 6- Gladman A. C. "Toxicodendron dermatitis: poison ivy, oak, and sumac". *Wilderness & Environmental Medicine*. 2006; 17 (2): 120–8.
- 7- Richard J. G. Rycroft. *Textbook of Contact Dermatitis*. Springer Science & Business Media. 2001; 989.
- 8- Kimber I, Basketter DA, Gerberick GF, Dearman RJ. Allergic contact dermatitis. *IntImmunoPharmacol*. 2002;2:201–11.
- 9- Gittler JK, Krueger JG, Guttman-Yassky E. Atopic dermatitis results in intrinsic barrier and immune abnormalities: implications for contact dermatitis. *J Allergy Clin Immunol*. 2013;131:300–13.
- 10- "DermNet NZ: Contact Dermatitis". Retrieved 2006-08-14.
- 11- Morris-Jones R, Robertson SJ, Ross JS, White IR, McFadden JP, Rycroft RJ. "Dermatitis caused by physical irritants". *Br. J. Dermatol*. 2002; 147 (2): 270–5.
- 12- Kornhauser A, Coelho SG, Hearing VJ. Applications of hydroxy acids: classification, mechanisms, and photoactivity. *ClinCosmetInvestigDermatol*. 2010;3:135–142.
- 13- Bourke J, Coulson I, English J. "Guidelines for care of contact dermatitis". *Br. J. Dermatol*. 2001; 145 (6): 877–85.
- 14- American Academy of Dermatology (February 2013), "Five Things Physicians and Patients Should Question", *Choosing Wisely: an initiative of the ABIM Foundation*, American Academy of Dermatology, retrieved 5 December 2013.

- 15- "Contact dermatitis Lifestyle and home remedies – Diseases and Conditions". Mayo Clinic. Retrieved 2014-04-18.
- 16- Kimber I, Basketter DA, Gerberick GF, Dearman RJ. Allergic contact dermatitis. *IntImmunoPharmacol.* 2002; 2:201–11.
- 17- "Clobetasol Propionate Monograph for Professionals". Drugs.com. American Society of Health-System Pharmacists. Retrieved 13 April 2019.
- 18- Rendon Mi, Berson DS, Cohen JI, Roberts WE, Starker I, Wang B. Evidence and considerations in the application of chemical peels in skin disorders and aesthetic resurfacing. *J ClinAesthetDermatol.* 2010; 3:32–43.
- 19- Khunger N. Standard guidelines of care for chemical peels. *Indian J DermatolVenereolLeprol.* 2008; 74:S5–S12.
- 20- Lin AN, Nakatsui T. Salicylic acid revisited. *Int J Dermatol.* 1998;37:335–342.
- 21- Rendon Mi, Berson DS, Cohen JI, Roberts WE, Starker I, Wang B. Evidence and considerations in the application of chemical peels in skin disorders and aesthetic resurfacing. *J ClinAesthetDermatol.* 2010;3:32–43.
- 22- Khunger N. Standard guidelines of care for chemical peels. *Indian J DermatolVenereolLeprol.* 2008;74:S5–S12.
- 23- Kinsley M, Metelitsa AI, Somani AK. Chemical peels. In: Wolverton SE, editor. *Comprehensive Dermatologic Drug Therapy.* 3rd ed. New York, NY, USA: Elsevier Saunders; 2013.
- 24- American Academy of Dermatology. Retrieved 28 January 2019.
- 25- Lebwahl, Mark G.; Heymann, Warren R.; Berth-Jones, John; Coulson, Ian, eds. *Treatment of Skin Disease: Comprehensive Therapeutic Strategies.* Elsevier Health Sciences UK. 2013; 336–339.
- 26- Keegel T, Moyle M, Dharmage S, Frowen K, Nixon R . The epidemiology of occupational contact dermatitis: a systematic review. 2009; 48: 571-578.
- 27- Schliemann S, Elsner P. "Prevention of Hand Eczema: Barrier Creams and Emollients". *Textbook of Hand Eczema.* Springer. 2014; 273–278.
- 28- Wolkerstorfer A, Visser RL, De Waard van der Spek FB, Mulder PG, Oranje AP. Efficacy and safety of wet wrap dressings in children with severe atopic dermatitis: Influence of corticosteroid dilution. *Br J Dermatol.* 2000;143:999–1004.
- 29- Heide R, De Waard van der Spek FB, den Hollander JC, Tank B, Oranje AP. Efficacy of 25% diluted fluticasone propionate 0.05% cream as wet wrap treatment in cutaneous mastocytosis. *Dermatology.* 2007;214:333–5.