

# Φεύγει δ' ἀναστᾶσ' ἐκ θρόνων πυρουμένη: Jason's bride wears the peplum offered by Medeea's sons and her body catches on fire: The symptoms of Steven-Johnson's syndrome and the attempt to treat it by a special bioglycerol

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Sir,

According to a meticulous perusal of the tragedy by Euripides concerning the vicissitudes of Medeea, the Jason's bride who was repudiated and suffocated by thirst of revenge offered to her enemy Glauce, the novel wife of his husband, the King of Iolcos, raiments that evoked a devastative fire upon and around her antagonist's body, the was argued that that excruciating burning sensation should be the identical perceived by an individual suffering from Steven-Johnson's synrome.

Stevens-Johnson syndrome (SJS) is a rare, serious disorder of the skin and mucous membranes. It's generally a reaction to medications or an abuse of mixes of medicaments that starts with flu-like symptoms, followed by a painful rash that spreads and blisters, accompanied by fever [1-5].

Then the top layer of affected skin dies, sheds and sensation of burning is gruelling, as Glauce, the Jason's wife, felt after wearing the peplum offered by Medeea's sons.

Healing and disappearance of burning sensation is long long lasting.

The authors believe that the chief cause of the affected skin scaling was a severe dehydration of the epidermis, and therefore was disclaimed a very ancient recipe apt to induce a strong hydration of the offended skin.

This old formula (Hager's cosmetic glycerin) forecasts the employ of:

Sumatra benzoe tincture (0.5); Castile rose flower water (4); Perfumer' alcohol (8); Glycerin (30).

And instead of chemical glycerin the authors have used Bioglycerol derived from Palm kernel oil, the sole bioglycerin suitable for a double upper skin layer hydration:

Bioglycerol from Palm kernel oil is capable to absorb the same percentage of hygroscopic vapour from dermis and from external environment.

So final skin hydration is accelerated and guaranteed at all.

Studies were conducted by the not corresponding in his own lab, using a tissue surrogate made up with fibrin-agarose (formula disclosed first in 2010 at the University of Granada, Spain and further developed in 2017 in Italy, Neaples, employing Polyethylen

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glycol acrylate as substrate and sun rays as main catalyst) [5].

The skin surrogate is able to respond to physical and chemical stimuli, and hence the hydration degree has been measured in hyperbaric cell at 94.5° delisle, after having spread bioglycerol from palm kernel oil onto the upper surface of the tissue surrogate.

Similar are the percentages of hydration underneath and upon the hydrogel layer made by polymerization of fibrin and agarose and these are respectively 84% and 87%.

The Hager's cosmetic glycerin was prepared and prompt to be spread to investigate its efficacy on extremely dehydrated skin.

A volunteer, a 31 y. old woman who had abused painkillers and ansiolytics for years and physicians had declared her to suffer from a clear Steven Johnson' syndrome, decided to undergo the experimentations.

The woman's back was totally scarified and presented serious pustules, and the volunteer had been feeling high fever from several weeks, and it must be stressed too that this fever could not decrease by the aids of 4 pills/day of Tylenol.

The experiment lasted 15 days and measurements of the skin upper layer hydration were conducted by a trivial electric skin analyzer that is based on the difference between the dielectric constant of water (81) and skin surface by measuring the capacitance of a dielectric medium.

Percentages of hydration were measured and scored at the 3<sup>rd</sup>, 6<sup>th</sup>, 9<sup>th</sup>, 12<sup>th</sup> and 15<sup>th</sup> day.

In Table 1 the progressive scores may be observed.

Balsam and Sagarin (the knights of Cosmetic Technology) in 1972 [6] used to refer that when glycerol, as humectant, but not absolutely as moisturizer, is inserted in whichever emulsion, if the percentage of use is under 20%, the humectant (idest glycerin) is able to guarantee a 100% skin hydration, absorbing vapour from outside, but when the percentage is higher than 20%, glycerol is able to absorb vapour from dermal layers (independently from the environmental relative humidity and temperature) [7].

**Table 1:** Progressive scores of study.

Hydration percentage at the very beginning of experiments	3 <sup>rd</sup> day	6 <sup>th</sup> day	9 <sup>th</sup> day	12 <sup>th</sup> day	15 <sup>th</sup> day
44%	57%	69%	77%	82%	87%

This is true for chemical glycerin, but as far as bioglycerol derived from palm kernel oil, the quasi-total epidermal hydration is afforded (84-87%) independently from the percentage of use of the glycerin itself and environmental humidity and temperature.

In the aforesaid Hager's cosmetic glycerin, bioglycerin is inserted in formula at 60%!

## Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki.

The authors certify that they have obtained all appropriate patient consent forms, in which the patients gave their consent for images and other clinical information to be included in the journal. The patients understand that their names and initials will not be published and due effort will be made to conceal their identity, but that anonymity cannot be guaranteed.

## REFERENCES

- Shanshal M. Dermatologic Emergencies CME Part III: Drug reactions. *Our Dermatol Online*. 2022;13:495-502.
- Amakha F, Khatem S, Aboudourib M, Hocar O, Zaoui S, Amal S. Cutaneous adverse reactions to antiepileptic drugs: 17 cases at the Dermatology Department of the Arrazi Hospital in Marrakech. *Our Dermatol Online*. 2023;14:283-6.
- Soumah MM, Keita M, Tounkara TM, Diane BF, Soumah DG, Sako FB, et al. [The cutaneous drug reactions during pregnancy: clinical, etiological and evolutionary aspects at the University Hospital of Conakry (Guinea)]. *Our Dermatol Online*. 2022; 13:e60.
- Stocka-Labno E, Gabzdyl N, Misiak-Galazka M, Pawlowska-Kisiel M, Łazowski T, Rudnicka L. Stevens-Johnson syndrome and toxic epidermal necrolysis in an academic hospital setting: a 5-year retrospective study. *Our Dermatol Online*. 2016;7:381-4.
- Campos-Cuerva R, Munoz BF. Nanostructured fibrin agarose hydrogel as a novel haemostatic agent. *J Tissue Eng Regen Med*. 2019;13:664-73.
- Balsam MS, Sagarin E. *Cosmetics Science and Technology*. 1972; John Wiley & Sons Inc.
- Al About K, Al About A. Eponyms in the dermatology literature linked to Stains used in Skin biopsies. *Our Dermatol Online*. 2013;4:569-72.

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