Foam: A unique topical drug delivery system

Foam is becoming a prominent delivery system for topical drugs. This platform provides an innovative, easy to apply, novel alternative for creams and ointments. To-date, all foams are collectively designated as Medicated Foams by the European Pharmacopoeia and as Foam Aerosol being a sub-part of the aerosol section in the US Pharmacopoeia. Not all foams are equal. While in the past there were few types of medicated foam i.e., aqueous foams and hydro-ethanolic foams, today there are several types of foam formulations being marketed and additional types under development, which differ from each other by their composition and functionality. For example, an emulsion-based foam, which is the equivalent of a cream; a petrolatum-based foam which is the equivalent of an ointment; a hydrophilic solvent based foam comprising PEG or propylene glycol, which is the equivalent of a hydrophilic ointment and an oil-based foam which is the equivalent of an oil solution or suspension. It would be of importance for the pharmaceutical scientist, as well as for the practicing physician, to understand the difference between the above-mentioned types of foam formulations and to be able to select the appropriate type of foam formulation for a given clinical condition. The current presentation will introduce the Rosetta stone of foams. It will describe the types of foams and provide a functional translation to their respective traditional topical dosage forms. The presentation will further display examples of unique dermal and transdermal drug delivery profiles, attained by foam formulations. By attenuating the foam composition, one can achieve intradermal or transdermal delivery preference. The presentation will further provide unique results from clinical trials that evaluated the efficacy of the first-in-class Minocycline Foam, in the treatment of moderate-to-severe acne and rosacea.

Recent Publications


Biography

Dov Tamarkin is the Chief Executive Officer of Foamix Pharmaceuticals Ltd., and Co-Inventor of the Foamix Foam technology. He has 30 years of pharmaceutical experience where he held multiple senior management positions at Teva Pharmaceuticals, Portman Pharmaceutical Industries, PowerPaper and TPI. He has a PhD degree in Chemistry from The Hebrew University of Jerusalem, Israel and is the Inventor of over a 100 patents in the pharmaceutical field.

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