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AUXILIARY SUBSTANCES IN SOFT DOSAGE FORMS

Abstract. Auxiliary substances have important role in prepared a soft dosage form. These are the ingredients which like Active Pharmaceutical Ingredients make up the medicine. Auxiliary substances are used like protective and bulking agents. Also it can be used to improve bioavailability of drugs in some instances, the following review discusses the various types and sources of auxiliary substances along with their uses, and these can be used for different activities.

Key world: auxiliary substances, excipient, ointment, co-processed excipients.

Ointments contain medicinal and auxiliary substances, which must be evenly distributed in the dosage form. Auxiliary substances form a simple or complex basis. Thus, the ointment base is a carrier of the lacquer substance. Depending on the composition, it may affect the release, bioavailability and therapeutic effect of the

drug substance. Basics provide the necessary mass of ointment, proper concentration of drugs, a soft consistency and have a significant effect on the stability of ointments. The degree of release of medicinal substances from ointments, the speed and completeness of their resorption largely depends on the nature and properties of the base.

Meaning of auxiliary substances: auxiliary substances or pharmaceutical excipients are used as inactive ingredients in dosage form; auxiliary substances are tools for structuring dosage forms; auxiliary substances are normally of little or no therapeutic value but are useful in the manufacturing and compounding of various pharmaceutical dosage forms; they are non-drug component of dosage form [1].

In pharmacy, there are a number of requirements for auxiliary substances. They must be non-toxic, commercially available in acceptable grade, acceptably cheap, contraindicated, physically and chemically stable by themselves and in combination with drugs and other components, color compatible.

As usually auxiliary substances use of topical additives: they control the extent of absorption, they maintain the viscosity of preparation and the stability of dosage form, improve the organoleptic property of dosage form and increase the bulk of formulation.

The US Pharmacopoeia-National formulary (USPNF) categorizes excipients according to the functions they perform in the formulations e.g. Binders, disintegrants etc. Excipients can be classified on the basis of their origin, use in dosage form, and functions they perform as follows [2, 3].

For functional purposes, the auxiliary substances that make up ointments and other soft medicines can be divided into:

- soft bases (petrolatum, lanolin, etc.);
- substances that increase the melting point and the viscosity of the bases (paraffin, spermaceti, hydrogenated vegetable oils, waxes, polyethylene glycols with high molecular weight, etc.);

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- hydrophobic solvents (mineral and vegetable oils, isopropyl palmitate, isopropyl myristate, polyalkylsiloxanes, benzyl benzoate, etc.);
- water and hydrophilic solvents (ethyl alcohols and isopropyl alcohol, polyethylene glycols 200-600, propylene glycol, propylene carbonate, glycerol, dimexide, etc.);
- emulsifiers such as oil in water (sodium lauryl sulfate, emulsifier No. 1, twins, polyoxyethylene glycol ethers of higher fatty spirits, salts of higher fatty acids, etc.);
- emulsifiers such as water in oil (higher fatty alcohols, cholesterol, wool wool alcohols, spongy, glyceryl monooleate, glyceryl monostearate, etc.);
- gellants (carbomers, alginic acid and its salts, cellulose derivatives, polyethylene, polyethylene glycols 1500-8000, bentonite, kaolin, gelatin, etc.);
- antimicrobial preservatives (miramistin, benzoic and sorbic acids and their salts, ethyl alcohol, propylene glycol, etc.);
- antioxidants (α-tocopherol, ascorbic acid and its derivative, citric acid, propylgallate, etc.);
- solubilizers, β-cyclodextrin, hydrophilic surfactants, etc.);
- perfume (menthol, essential oils, phenylethyl alcohol, etc.);
- stabilizers pH (citric acid, phosphate salts of sodium, etc.).

Some auxiliary substances can simultaneously perform several of the above functions, and also be part of ointments as softening and moisturizing additives, penetrators, softeners, etc.

Gellants, emulsifiers and substances that increase the melting point and base viscosity are also stabilizers of disperse systems. Certain auxiliary substances are mixtures of various auxiliary substances: lanolin water, emulsifier No. 1, non-ionic emulsion wax, Vaseline alloy with wool wax alcohols, etc.

Thus, at the present time a large number of different components are used as bases for ointments, less often individual substances, which, as a rule, are complex physicochemical systems. Research in this area is expanding every year. A wide

range and variety of properties of bases for ointments lead to the need for their classification.

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