

DEVELOPMENT AND VALIDATION OF NEW METHOD FOR ASCORBIC ACID IN COMPOUNDING PREPARATIONS

Krayem O. M., Abu Shark A. I., Harna N. V., Bevz O. V.

Scientific supervisor: associate professor Abu Shark A. I.

National University of Pharmacy, Kharkiv, Ukraine

Amjad1977a@gmail.com

Introduction. Vitamin C, also known as ascorbic acid and L-ascorbic acid, is available in various dosage forms, it is an ingredient of a number of vitamin preparations, some cough and cold remedies and also extemporal forms. It is found in supplements alone or in combination with other ingredients, including herbal formulations. It is usually found in multivitamins, including ones made for children, adults, and prenatal care.

Aim. The aim of our study is to develop methods for quality control of ascorbic acid in pharmacy-prepared capsules.

Materials and methods. We used chemical methods of quantitative determination of ascorbic acid in the pharmacy-prepared capsules which prepared in pharmacy "Leda" (series DU0261511546). Reagents, volumetric solutions and indicators that meet SPU. Analytical scales «AXIS» ANG 200 (Poland) and measuring vessel class A.

Results and discussion. For identify the active pharmaceutical ingredient in the composition of pharmacy-prepared capsules was selected chemical reactions - gray sludge formation under the influence of silver nitrate, blue solution of 2,4-dyhlorfenolindofenole discoloration and reaction of ascorbinase of iron (II) blue-violet color.

To quantity determine of ascorbic acid, which has restorative properties, was used chemical rapid method of determining, in particular redox method. The titration is carried out in a mixture of water and sulfuric acid or in an aqueous medium of 0.05 M iodine solution as without indicators way to slightly yellow color, and with the use of indicator - starch solution (to steady blue color). To quantitative determination of ascorbic acid was chosen as an alternative method of acid-base titration. Titrated 0,1 M sodium hydroxide solution, using phenolphthalein as an indicator. The content of the active ingredient in the capsules was calculated in grams, based on the average weight of the contents of the capsule. The most accurate method proved iodometric quantitative determination, based on titration of active ingredient capsules in water with sulfuric acid.

Conclusions. We are working to develop methods to identify and the quantitative determination of ascorbic acid in pharmacy-prepared capsules.