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TOSHKENT FARMATSEVTIKA INSTITUTI

TALABALAR ILMIY JAMIYATINING AN`ANAVIY 80-ILMIY ANJUMANI

“INSONGA E’TIBOR VA SIFATLI TA’LIM” YILIGA BAG’ISHLANGAN “FARMATSEVTIKADA IQTIDORLI YOSHLARNING ILMIY SALOHIYATI” MAVZUSIDAGI TALABALAR UCHUN “80-TALABALAR ILMIY JAMIYATI” ILMIY ANJUMANI TO’PLAMI

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На сегодняшний день длительность испытаний составила 58 дней. За это время внешний вид образцов таблеток не изменился: цвет белый, с риской на одной стороне, форма – круглая, цельность краев – сохранена. Средняя масса таблеток составила от 0,296 г до 0,306 г, т.е. отклонения от средней массы не превысила 5%, приведенных в нормативной документации. Первоначально таблетки распались за 6 мин 20 секунд, с течением времени данный показатель увеличился до 9 мин 5 секунд, однако находились в требуемом диапазоне (не более 15 мин). По показателю «Растворение» анализируемые таблетки невирапина также отвечали требованиям НД: количество высвободившейся активной субстанции за 45 мин составило 89,3-92,8%. Количественное содержание невирапина в каждой единице варьировало от 0,1973 г до 0,2051 г.

Выводы. По результатам проведенных исследований установлена стабильность генерика невирапина, равная 2 годам. Исследования продолжаются.

STUDY OF TECHNOLOGICAL PARAMETERS OF THE SUBSTANCE EFAVIRENZ

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Introduction. Antiretroviral medicines are drugs that slow down the development of HIV and prevent the destruction of the immune system. On the modern pharmaceutical market drugs of this group are presented in a wide range. The main share of the production of antiretroviral drugs is in the U.S., Britain and Germany.

Antiretroviral therapy is one of the most expensive. In this regard, generic drugs are becoming increasingly important to reduce the cost of prevention and treatment of HIV-infected people.

Literature sources provide the results of studies comparing the cost of annual courses of treatment with the original (Combivir) and generic (Virocomb) drugs. It was found that treatment with the generic reduces costs by more than fivefold.

Taking into account the above mentioned and the fact that the range of this group of drugs produced in Uzbekistan is small, the Tashkent Pharmaceutical Institute is conducting research on development of generic efavirenz to treat HIV-infected people.

Purpose of the study. To study technological indicators of efavirenz substance.

Results. In the course of the study the fractional composition of efavirenz, flowability, bulk density, natural slope angle, compressibility, residual moisture were determined.

The methods given in the State Pharmacopoeia of the Republic of Uzbekistan (1st edition) and the State Pharmacopoeia of the Russian Federation (14th edition) were used. Experiments were carried out at the department of technology of dosage forms at Tashkent Pharmaceutical Institute.

The results of fractional analysis showed the following distribution of the analyzed substance in fractions: -1000 μm +500 μm =17.46 %; -500 μm + 355 μm = 34.42 %; -355 μm +250 μm = 28.15 %; -250 μm + 180 μm = 14.70 %; -180 μm + 63 μm =3.46 %; -63 μm =1.81 %.

A high powder content in fractions above 355 μm was observed. These data do not coincide with the results of microscopic analysis, which confirms the fact that the substance efavirenz has the ability to form conglomerates.

Efavirenz substance has practically no free-flowing property. So, when determining without shaking this index was 0, and when using shaking - 0.971*10-3 kg/s. The angle of natural slope was also unsatisfactory, equal to 68.1 degrees.

The value of bulk density equal to 247.11 cm3 also did not correspond to obtain solid dosage form - tablets by direct compression. The residual moisture content of the substance was 3.26 %.

Conclusions. The results of study of technological parameters of efavirenz substance with antiretroviral activity showed that for selection of composition and development of technology of generic drug in form of tablets it is necessary to introduce excipients into the mass and use of pelletizing method for improvement of these parameters

KALANCHOE GEL DORI TURINING TURG‘UNLIGINI ANIQLASH

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Dolzarbligi. Stomatologik kasalliklarini davolashda va oldini olishda zamonaviy stomatologik xususiyatlari va belgilanishi bo‘yicha turli xil dori preparatlari mavjud. Lekin oxirgi paytda stomatologiya amaliyotida og‘iz shilliq qavatining yallig‘lanishi tufayli paradontoz, gingivit, stomatit, glossit kasalliklarining soni oshib borishi kuzatilmoqda. Stomatologik kasalliklarini davolashda samarali va xorijiy preparatlar o‘rnini bosuvchi preparatlarning yangi mo‘tadil tarkibi va texnologiyasini ishlab chiqish dolzarb masalalarda biridir.

Avvalgi o‘tkazilgan tadqiqotlar natijasida tarkibida kalanhoy shirasi va furatsilin saqlovchi stomatologik gel tarkibi va texnologiyasi, shuningdek “Kalanchoe gel” sifatini baxolash usullari ishlab chiqilgan.

Tadqiqotning maqsadi: yuqoridagilarni hisobga olgan xolda tarkibida kalanhoy shirasi va furatsilin saqlovchi stomatologik gelning saqlash davomida turg‘unligini aniqlashdan iborat.

Usul va uslublar: Taklif etilgan Kalanchoe gel tarkibi va texnologiyasi bo‘yicha ishlab chiqilgan kalanhoy shirasi va furatsilin saqlovchi stomatologik gelning aniq o‘rnatilgan vaqtda sifat ko‘rsatkichlarini aniqlashda me’yoriy hujjatlar va adabiyotlarda keltirilgan usullardan foydalanildi; quyidagi sifat ko‘rsatkichlari baholandi: tashqi ko‘rinishi, chinligi, bir xilligi, gelning suvli ajratmasining pH i, faol moddalarning miqdori. Gelning dastlabki sifat ko‘rsatkichlari va har olti oy tabiiy usulda saqlangandan so‘ng aniqlandi.

Tayyorlangan “Kalanchoe gel” njng turg‘unligini ta’minlash uchun ko‘p qirrali plastmassa bushonli alyuminiy tubalarga joylashtirildi (Тубы и бушоны для медицинских целей (ТУ 64-7-678-90). Gelning 25,0 g dan tubalarga solib salqin, yorug‘lik tushmaydigan joyda saqlandi.

Natijalar: Dori vositalarning turg‘unligi ko‘pincha jihozlovchi materialning kimyoviy tarkibi va xususiyatlariga bog‘liq. Bu muhim masala bo‘lib, shuningdek jihozlovchi materiallarni tashqi muhit (yorug‘lik, harorat, namlik) ta’siridan dori preparatlarni saqlash xossalar ham alohida e’tiborga olinadi.

“Kalanchoe gel”ning kuzatilgan muddat 18 oy davomida tashqi ko‘rinishining o‘zgarganligi kuzatilmadi. Gelning tashqi ko‘rinishi sarg‘ish rangli, bir xil, qavatlarga ajralmagan, pH ko‘rsatgichi – 5,8 , massa yo‘qotishi – 8,9% , flavanoidlar miqdori - 0.0026% , furatsilin - 0,02% tashkil etdi.

Xulosa: Ilk bor taklif etilgan kalanhoy shirasi va furatsilin saqlovchi stomatologik “Kalanchoe gel” ning kuzatish muddati 18 oy davomida aniqlangan sifat ko‘rsatkichlari o‘zgarmaganligi tasdiqlandi.