THE CHOICE OF THE OPTIMAL AMOUNT OF "PROPOLIS" GEL FOR APPLICATION TO THE SKIN

Timofeeva M.K., Bobro S.G., Tikhonov O.I.
The National University of Pharmacy, Kharkiv, Ukraine
sveta_bobro@mail.ru

The aim of the present stage of the research was to determine the optimal amount of the test sample for cutaneous applications. The terms of this stage of the study is that the amount of the test sample is applied on the skin area of 4 cm^2 (2x2 cm) and is rubbed into the animal's skin for 30 sec. Assessment of the skin cover is carried out visually. That amount of gel after rubbing which the skin is without glitter and remains hydrated enough is optimal. If the skin is dry and is not moisturized, the amount of gel is insufficient; if the skin is shiny, the amount of gel is excessive.

Determination of the optimal amount of the test sample was conducted on male white rats. The hair in the skin area of 4 cm^2 (2x2 cm) was cut off on the right side of the animals 24 hours before applying "Propolis" gel; in group 1 of the animals the gel was applied in the amount of 40 mg, in group 2 the amount of the gel was 50 mg, and in group 3 – 60 mg. The testing of each amount of the gel was performed on three animals.

The results of the study on choosing the optimal amount for application to the skin of animals are presented in Table 1.

Table 1 – The results of the study of the optimal amount of "Propolis" gel, 2 %, for application to the skin of animals

Test sample	The state of the skin cover in 30 sec after application of "Propolis" gel		
	40 mg/4 cm^2	50 mg/4 cm^2	60 mg/4 cm^2
"Propolis" gel	the skin remains dry	**the skin is hydrated enough**	the skin is hydrated excessively

Based on the data obtained one can conclude that the optimal amount of "Propolis" gel for skin application is 50 mg/4 cm^2, which is 12.5 mg calculated with the reference to 1 cm^2.

Thus, according to the results of the study conducted the optimal dose of "Propolis" gel for application to the skin of rats has been determined, it is 12.5 mg/cm^2.