

Development of the drug for chemical peeling using the technique of complex formation with surfactant and the ion exchange method

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Recently, chemical peeling has become very popular for treatment of skin disorders in Japan. Some drugs, such as phenol, salicylic acid, and resorcinol are well known as drugs for treatment of acne vulgaris. However, the chemical structure of peeling agents changes by oxygen or heat. In addition, their drugs are worried about skin stimulus and safety. We tried to stabilize some drugs, such as phenol, salicylic acid, and resorcinol by making complexes with various amphiphilic agents. We confirmed that complexes of the drugs for chemical peeling were stable against heat, and decided their crystal structures by x-ray analysis. Moreover, we tried the ion exchange reaction counter ions of amphiphilic agents and the drug for peeling to obtain new drugs for chemical peeling. It was suggested that drugs of chemical peeling, such as salicylic acid were able to have surface activity and skin permeability by this method. Our finding of the complex between amphiphilic agents and drugs of chemical peeling and ion exchanged drugs of peeling will be expected as a new drug for acne vulgaris patients.