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The study of properties of the matrix for periodontal films based on Metronidazole, Chlorhexidine and Glucosamine

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Abstract: Selection of optimal matrix is one of the most important stages for new semi-solid medicines creation. Biopharmaceutical properties of periodontal film completely depend on the properties and composition of the matrix. The purpose of the present study was selection of proper composition and technology of film base for obtaining of necessary physical-chemical and technological parameters. Periodontal films with various compositions based on different natural and semi-synthetic polymers or their combinations were made according to different technologies. Physical- chemical properties and osmotic action of obtained matrixes were studied. Microscopy of periodontal films was performed. After selection of the matrix study of metronidazole release was performed. The collected data showed that chitosan and agar-agar matrix are the most promising base for the future research of the investigated composition of periodontal film. Technology of films was modified according to the technological properties of selected polymers.

Keywords: periodontal film, chitosan, agar-agar, metronidazole, chlorhexidine, glucosamine.

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