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[Cysteamine ophthalmic hydrogel for the treatment of ocular cystinosis].

[Article in Spanish; Abstract available in Spanish from the publisher]

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Ocular cystinosis is a rare disease characterised by the deposit of cystine crystals on the corneal surface, which hinder patients' eyesight. Oral cysteamine is given as cysteamine; however, it does not reach the cornea due to the lack of corneal vascularization making necessary its administration by the topical ocular route. The aim of the present study is to determine the stability of an ophthalmic hydrogel of cysteamine, which can be potentially prepared at hospital pharmacy departments, under different preservation conditions during a follow-up of 30 days. Different physical and chemical parameters were evaluated: osmolality, pH and cysteamine concentration, which has been measured by a method of ultra performance liquid chromatography-tandem mass spectrometer (UPLC-MS/MS). Descriptive assays were also performed, such as transparency measurement and microbiological assays in order to verify its sterility. The obtained results allow us to conclude that the cysteamine hydrogel is stable during 30 days, being recommendable its preservation in refrigerated conditions.

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