Selective determination of tolterodine tartrate in presence of its oxidative

Amr Mohamed Badawy ,Mamdouh R.Rezk1,AmrM.Badawy1,2, OsamaAbdel Sattar3, OmaimaM.Khattab4*

Abstract

Four stability-indicating methods were developed for determination of tolterodine tartrate in the presence of its oxidative degradation product (the metabolite). The degradation product was prepared via oxidation with hydrogen peroxide. The degradation product was characterized and structurally elucidated. The first method was the first derivative 1D by measuring the peak amplitude at 292nm. The second method was a second derivative by measuring the peak amplitude at 236, 287, 296 nm. The third method was a high performance liquid chromatographic using a reversed phase column and a mobile phase of phosphate buffer: methanol: triethyl amine (60: 40; 0.2 by volume). The forth method was a thin layer chromatography coupled with densitometric detection.
Selective quantification of tolterodine in pure form, pharmaceutical formulation and/or in the presence of its degradant was demonstrated. The indication of stability was done under condition likely to be expected at normal storage condition.

An Indian Journal 2016, October