

عنوان مقاله:

Synthesis and evaluation of antimicrobial effects of gentamicine nanocrystals

محل انتشار:

پنجمین کنگره باکتری شناسی پزشکی ایران (سال: 1397)

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خلاصه مقاله:

Gentamicine nanocrystals (GNPs) were prepared using precipitation method and characterized by dynamic light scattering, scanning electron microscopy, X-ray powder diffraction (XRPD) analysis. The antibacterial effect was studied using serial dilution technique to determine the minimum inhibitory concentration (MIC) of the nanocrystals and was confirmed by streak cultures. The prepared GNPs were mono-dispersed and had narrow size distribution with average diameter of 65 nm. PXRD and FTIR studies confirmed that GNPs were formed during the preparation process. The GNPs showed similar MICs against *S. aureus* compared to untreated drug. However, a preserved antimicrobial effect was observed for GNPs compared to untreated drug after 2 days of incubation.

کلمات کلیدی:

Antimicrobial activity, Gentamicine, Nanocrystals, *Staphylococcus aureus*

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