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## Statistical evaluation of influence of xanthan gum and guar gum blends on dipyridamole release from floating matrix tablets.

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### Abstract

The present investigation explored the use of xanthan gum and guar gum for development of floating drug delivery system of dipyridamole using factorial design approach. The content of polymer blends (X(1)) and ratio of xanthan gum to guar gum (X(2)) were selected as independent variables. The diffusion exponent (n), release rate constant (k), percentage drug release at 1 hr (Q(1)) and 6 hr (Q(6)) were selected as dependent variables. Tablets of all batches had desired buoyancy characteristics. Multiple regression analysis with two way ANOVA revealed that both the factors had statistically significant influence on the response studied ( $p < 0.05$ ). Results of Tukey test showed the relative contribution of each level of different factors for the response studied. It was concluded that the ratio of xanthan to guar gum had equal or dominant role as controlling factor on kinetics of drug release compared to content of polymer blends.

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