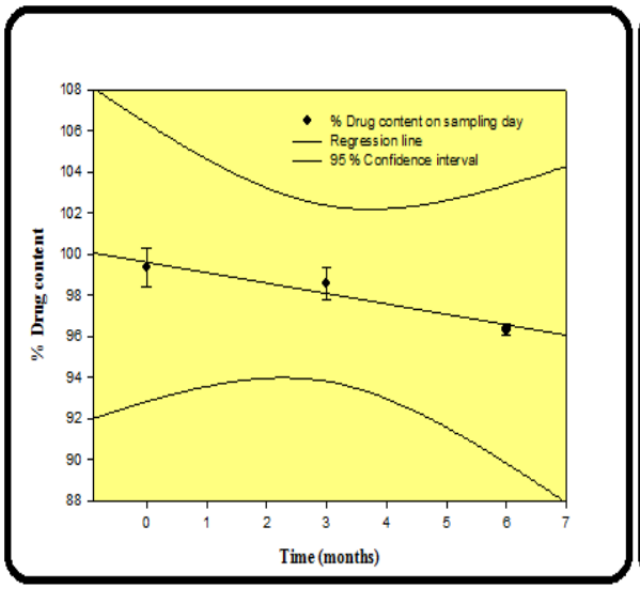

Fig. 12: % Drug content in the effervescent floating tablet of Verapamil hydrochloride (F1) when stored at 40 ± 2 ºC/75 ± 5 % RH for 06 months

CONCLUSION:

From the above studies, it has been observed that effervescent based floating drug delivery system is a promising approach to achieve increase gastric residence time and thereby improve its bioavailability, All the prepared formulation were found to be of circular shape with no cracks. Friability and hardness were within the standard limits thus showing good mechanical strength of tablets. The drug content was well within the Pharmacopoeial limits indicating uniform distribution of drug within the effervescent based floating tablet dosage form. The formulations of F1, F5, F6, F9, and F10 exhibited more than 75% drug release at 12 h and F1 exhibited a maximum of 30 % drug release in the 1st hour and constant release for almost upto 12 h. Based on the *in vitro* evaluation data, formulation F1 was considered as optimized formulation. Short-term stability studies of optimized formulations F1 indicate, that there are no significant changes in drug content and dissolution parameter values. Thus the objective of formulating a floating dosage form Verapamil hydrochloride has been achieved.

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