

margin around the fundus in the uterine shift.

The incidence of early bladder and rectal toxicities amongst all our patients were mild with all of them except two showing Grade 2 cystitis and mild diarrhea. Only one patient had Grade 2 diarrhea which was controlled with conservative measures [Table 4].

Despite maintaining a strict bladder filling and rectal emptying protocol, the interfraction movement in the uterine position during the course of radiotherapy may lead to a miss in target or overtreatment of the rectum, which lead to toxicity. We could not find any study in which uterine shift was observed during the whole course of radiotherapy hence, we were unable to compare the results with other works.

In conclusion, interfraction movement of the target organs may lead to overdosing or underdosing of the target or the normal structures during IMRT, hence at least once a week CBCT imaging might be necessary to minimize the geometrical miss of the tumor and deliver the planned doses to the target and normal structures for the best local control with minimum toxicity which is the primary aim of IMRT. This would also aid in the selection of appropriate and adequate planning target margins and provide an asymmetrical PTV conforming to the daily anatomical shift and contour of the patients. We also recommend a tapered CTV to PTV margin especially around the fundus of the uterus as maximum uterine motion is known at the fundus however further studies with larger numbers of patients and exact point localization of the uterus will be required for this purpose.

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Conflicts of interest

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