Introduction
The basic aim of a dental prosthesis is the restoration of function and esthetics by replacing missing teeth with minimal risk to adjacent supportive tissues. Many at times the edentulous span may be too long or presence of diastema. In such situations the use of a conventional fixed partial denture (FPD) to replace the missing tooth may result in anterior teeth being too wide, an over-contoured emergence profile, and altered length-to-width relationship of the teeth. Maximum esthetic results may be obtained if the natural anatomic forms of teeth are protected and the diastema are maintained with minimal over-contouring of the adjacent teeth.

In routine dental practice there can be situations like generalized spacing, pre-existing diastema, or excessively long edentulous span where diastema may be desired. When clinical conditions or economic constraints preclude the use of implants, a fixed dental prosthesis with loop connector can be a good treatment option. A loop connector can be used to replace one or more missing teeth maintaining the diastema.

Case report
A 47 year old male patient reported to the Department of Prosthodontics with a chief complaint of missing right lateral incisor. The edentulous span was wider mesiodistally and presence of generalized spacing was noticed (fig 1). Radiographic evaluation revealed enough bone support for the abutment teeth.

The treatment plan was discussed with the patient and the abutment teeth were planned for porcelain fused to metal crowns. The diagnostic impressions of the maxillary and mandibular arches were made using alginate impression material. Shade selection was done. The abutment teeth i.e. upper right central incisor and canine were prepared to receive porcelain fused to metal crown with subgingival shoulder finish line (fig 2). The final impressions were made using putty wash technique (aquasil, densely).

The final casts were poured using type IV dental stone (gyprock). Wax patterns for the fixed dental prosthesis with loop connectors were fabricated and cast using base metal alloy. After the metal coping was retrieved, metal try-in was done followed by ceramic layering according to the selected shade. Bisque trial was done to check for any esthetic and occlusal corrections. After final finishing the restoration was cemented using glass ionomer cement type I luting GIC (fig 3). The patient was instructed to maintain proper oral hygiene.

Discussion
A connector is an integral part of a fixed dental prosthesis. As per GPT-8 a connector is defined as that portion of a fixed dental prosthesis which unites the retainer and pontic. Connector in fixed dental prosthesis can be rigid or nonrigid. Loop connector is a type of rigid connector. Loop connector becomes an ideal choice when diastema is desired between adjacent teeth. This enhances esthetics by retaining the naturally present diastema, providing a good emergence profile and preventing oversized retainers.

Disadvantages include difficulty in maintaining oral hygiene, interference in tongue movement and initial speech discomfort. The maintenance of oral hygiene and speech discomfort gets better with use. The loops should be rounded and smaller in diameter for better patient comfort.

Conclusion
Proper case selection and treatment planning are crucial to the success of a fixed dental prosthesis with loop connector. Whenever diastema between the teeth needs to be retained, a fixed dental prosthesis with loop connector can be an option.
Fig. 3 final prosthesis

Labial view  Palatal view

References
4. ... The Glossary of Prosthodontic Terms. J Prosthet Dent 8th Ed,. July 2005
5. ... Sudhir Bhandari, Sonika Bakshi. Survival and complications of unconventional fixed dental prosthesis for maintaining diastema and split pathologically migrated teeth; a case series up to 8 years follow-up. Indian Journal of Dental Research. 24(3), 2013
13. ... Kamalakanth S, Arbaz S. Anterior loop connector fixed partial denture: A simple solution to a complex prosthodontic dilemma. Journal of Indian Prosthodontic Society 2008;8:162–4