A patient of age 29 years came with a complaint of pain in relation to upper left quadrant and ugly appearance. On examination dental caries present with pulpal involvement in 24. Other intra oral findings were shift in midline, spacing in 22 region, class I molar occlusion, a little increase in overbite and over jet, 12 and 22 were missing, 31, 32 and 41, 42 were looking like “double tooth” (Fig. 1). Full compliment of other teeth were present. When ever missing teeth,fusion and germination teeth occur specially in anterior region it becomes a very much concern regarding esthetics as the CANINES, which are considered as cornerstones of occlusion are changed in their position. Various treatment options are possible to improve the ESTHETICS. Considerable improvement can be achieved in patients with missing lateral incisors by combining carefully detailed orthodontic space closure with techniques from esthetic dentistry. Such methods may include:

1. Individualized extrusion and intrusion during mesial movement of the canine and first premolar respectively, to obtain an optimum level for the marginal gingival contours of the anterior teeth.

2. Careful correction of the crown torque of a mesially relocated canine to mirror the optimal crown torque of a lateral incisor, along with the provision of optimal torque for the mesially relocated maxillary first and second premolars.
3. Esthetic recontouring of a mesially relocated canine to a more ideal lateral incisor shape and size with a combination of grinding and composite resin build-ups or porcelain veneers.

4. Increasing the width and length of mesialized and intruded first premolars with composite resin build-ups and/or porcelain veneers to achieve optimal esthetics and functional occlusion.

The common esthetic problems with orthodontic space closure are the most obvious difficulty in substituting canines for missing maxillary lateral incisors is the achievement of an excellent esthetic and functional outcome that resembles an intact natural dentition. Particularly, space closure can create problems in matching tooth size, shape, and color. The canine is normally a longer and larger tooth, mesiodistally and labiolingually, than the lateral incisor it is to replace, and more saturated with color. The first premolar is generally shorter and narrower than the contra lateral canine. If these natural size differences are not compensated for, the esthetic outcome will be compromised.

A combination of carefully performed orthodontic space-closure and a cosmetic finishing stage, can achieve the look of a natural, healthy dentition in a patient with one or both missing maxillary lateral incisors. A major advantage of this approach is the permanence of the finished result. Alveolar bone height is maintained by early mesial movement of the canine. Another important advantage of the space closure alternative is that the healthy gingival tissues and intact interdental gingival papillae will change in synchrony with the patient’s own teeth over a lifetime.

The only possible disadvantage of the space-closure approach is that spaces may reopen after treatment. However this can be overcome with long-term fixed retention, using a lingually bonded flexible spiral wire retainer from first premolar to first premolar.

Regaining adequate space for 12, 22 orthodontically and then:
1. Maryland bridge for missing 12, 22.
2. Metal ceramic bridge 13, 12, 11, 21, 22, 23.
3. Removable dental prosthesis 12, 22.
4. Single tooth implants 12, 22.
5. Auto-transplantation of premolars.

If the treatment plan includes space reopening, it is preferable to open the spaces for prosthetic replacements in the premolar areas. It is emphasized that in lateral incisor agenesis cases, where the teeth tend to be relatively small, it is frequently desirable to build up the maxillary central incisors to improve the balance of the six maxillary anterior teeth. This approach will also minimize the amount of grinding required on the canines and improve the central incisor display (with relaxed lips and in speaking) in cases of insufficient incisor exposure. However the treatment of choice...
depends on patient’s orthodontic, periodontal, esthetic and functional requirements. Usually multi
disciplinary approach is needed.
Various treatment options for fused teeth are
1. Separation of conjoined tooth into two single
teeth.
2. Hemi section
3. Reshaping of the crown and application of
fissure sealant is recommended to prevent
dental caries.

Discussion
Case history, clinical and radiological
examination can provide information for diagnosing
dental anomalies. Judicious evaluation of all
information is required to diagnose the case.
Hoblink et al surveyed presenting complaints in a
group of hypodontia patients. The most common
complaints were missing teeth, spacing in the dental
arcs and poor appearance.

Natural marginal gingival contours (high-low-high)
can be achieved by selective extrusion and intrusion
of the canines and first premolars, respectively.
Restoration of intruded first premolars with
composite resin build ups or porcelain veneers is
necessary to reshape such teeth to resemble
natural canines and to produce a balanced smile.
Composite build-ups may also be required on the
central incisors for two reasons; the canines cannot
be ground beyond the diameter of the roots and
may be too wide for the existing central incisors,
and the patient’s incisor display with relaxed lips is
often inadequate. Attention to achieving correct
maxillary arch form and torque of the posterior teeth
will ensure a full and radiant smile.

Enamel-bonded porcelain veneers provide
improved esthetics with less need for maintenance
than composite resin build-ups. The major
advantages of space closure are that treatment is
finished at an early age, that the result is
permanent, and that optimum gingival and
periodontal health can be preserved with later
modifications occurring in synchrony with the
patient’s own teeth. For these reasons, space
closure is particularly indicated in agenesis patients
with gummy smiles.

With fusion, deep groove present may
predispose the teeth to development of dental
caries and periodontal disease. Possibility of
bacterial plaque accumulation in this area is high.
Strict oral hygiene is imperative to maintain
periodontal health. Difficult cases include a wide
spectrum of problems and the best way to
manage these difficult cases depends on a number
of factors including the knowledge and technical
skills of the practitioner.

CONCLUSION
A rare case of simultaneous missing upper lateral
incisors and fused lower incisors is presented. Brief
review of all possible modes of treatments are
discussed.

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