ABSTRACT
The management of patients with traumatic injuries to teeth is an integral part of dental practice. The treatment of intrusive injuries poses special challenge owing to their association with the high frequency of pulp necrosis because of the direction of displacement. The paper presents a case report on the management of traumatically intruded anterior teeth with subsequent functional and esthetic rehabilitation.

Introduction
The management of patients with traumatic injuries to teeth is an integral part of dental practice. The treatment of intrusive injuries poses special challenge owing to their association with the high frequency of pulp necrosis because of the direction of displacement. The improper repositioning like the roots being in intimate contact with bone leads to replacement resorption. This paper presents a case report on the management of traumatically intruded anterior teeth with subsequent functional and esthetic rehabilitation.

Case Report
A 15 year old boy reported to the Department of Conservative Dentistry and Endodontics, Subharti Dental College, Meerut, India with a chief complaint of intrusion of upper anterior teeth followed by a trauma occurred within 48 hours. Clinical examination revealed an avulsed lateral incisor 22 and intruded and rotated 12, 11 and 21 with associated soft tissue injury (Figure 1). No alveolar fractures were detected on palpation. The TMJ was examined for any fractures and dislocation OPG's and occlusal radiographs were recorded. The adjacent teeth were checked for the vitality of the pulp and the values were recorded. Extent of intrusion and avulsion of teeth was confirmed on radiographs (Figure 2). The OPG revealed the intrusion and rotation of 12, 11 and 21. There was no evident injury to other teeth and the TMJ. The treatment planned included extraction, immediate endodontic treatment and surgical repositioning of all the intruded teeth. After the administration of local anesthesia the teeth were extracted one by one and extra-oral endodontic procedure was carefully performed. During the procedure the tooth was soaked in saline. The tooth was held at the coronal part using a forcep. Access was prepared and working length established using a 15 number K file. Biomechanical preparation was completed till size F2 Protaper file and single cone obturation, using the corresponding protaper cone was completed. The tooth was repositioned back in the corresponding socket within 20 minutes. The procedure was repeated for remaining two teeth. The positioning was done keeping in mind a simulation of the natural occlusion as far as possible. Overjet and overbite was approximated and care was taken to maintain the correct angulation of the surgically repositioned teeth. Semi rigid splinting was performed. A radiograph was recorded to confirm the correct positioning of the teeth during the described procedure. The patient was prescribed antibiotics and analgesics, and kept on recall. After fifteen days the splint was removed, and the teeth were checked for stabilization. The vitality of adjacent teeth was checked, recorded and compared. The values were the same as recorded previously. A second recall check up was done after three months. The teeth were examined for stabilization, vitality of adjacent teeth were checked, recorded and compared. The recorded values remained unchanged. Radiographs were recorded to confirm the absence of resorption or ankylosis. The patient exhibited a positive healing response and no signs of any pathological change were seen. Patient was kept on a regular recall check up. At eighteen month recall, after confirming the positive healing progress, a removable prosthesis was provided to the patient, as a space maintainer (Figure 3, Figure 4). A permanent treatment plan was postponed till eighteen years of age.

Discussion
In severely intruded permanent teeth damage usually occurs to the cementum and the periodontal ligament. The pulp vitality is not expected to return and hence root canal therapy is indicated. If treatment is delayed, infection-related root resorption is a distinct and undesirable possibility. Evidence based literature review and International Association of Dental Traumatology (IADT) support immediate repositioning and initiation of root canal treatment which usually generates positive prognostic outcome. The treatment objectives in severely intruded teeth should include, repositioning and stabilization of the tooth in its anatomically correct position to optimize healing of the periodontal ligament and alveolar bone while maintaining esthetic and functional integrity of the teeth. Initiation of endodontic treatment at the earliest after the traumatic incidence has been advocated as delayed repositioning leaves roots in intimate contact with bone and influences the onset of replacement resorption. From an endodontic point of view, the main complicating factors of luxation injuries are pulp necrosis with infection, pulp canal calcification, ankylosis and root resorption. Factors that affect the prognosis of intruded teeth are the degree of displacement, treatment time delay, root maturation and concomitant crown fractures. The greatest frequency of pulp necrosis is encountered among intrusions followed by lateral luxation and extrusion. According to Andreasen and Vestergaard the frequency of pulp necrosis in permanent dentition after concussion and subluxation ranges from 3% to 6% and for extrusive, lateral, and intrusive luxation from 26% to 85%. Owing to the high incidence of pulp necrosis; a prophylactic root canal therapy is advised; the only obstacle being the difficulty in ac-
Treating the unexpected- intentional replantation

cessing an intruded tooth. Hence an Intentional Replantation procedure helps us in gaining adequate access for the immediate pulp removal improving the prognosis of such traumatized teeth. Another modality of treatment could have been to first extrude the teeth unto the occlusal height, stabilize and splint and then perform the endodontic therapy. However in this particular case, due to the severe mobility, inflammation and bleeding this modality was not opted for. Stabilization of the repositioned teeth guides the final prognosis of the teeth. The stabilization is dependent upon the associated tooth loss and alveolar fractures. According to the studies done, stabilization should be kept for a minimum of 14 days. While the patient should be kept under observation for a period of 5-6 months for the prognostic outcome before a definitive functional and esthetic treatment can be instituted.

Conclusion
In conclusion owing to the high incidence of pulp necrosis; a prophylactic root canal therapy is advised along with intentional replantation in the management of this case.

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