

Multidisciplinary Management of a Combined Endodontic Periodontal Lesion in a Young Adolescent: A Case Report

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ABSTRACT

Endodontic-periodontal lesions are a group of lesions involving both the pulp and periodontal tissues due to the close anatomical and vascular inter-relationship between them. These lesions can present a diagnostic challenge because of their similar clinical manifestations and complex pathogenesis. Early diagnosis and prompt multidisciplinary management are particularly important in adolescents to preserve the natural dentition, to maintain supporting periodontal structures, and ensure proper oral function and aesthetics. This case report describes the successful management of a combined endo-perio lesion in a 13-year-old adolescent patient using a multidisciplinary approach involving endodontic therapy, periodontal therapy, Advanced Platelet-Rich Fibrin (A-PRF), and bone grafting. The patient presented with pain, swelling, deep periodontal pocketing, and radiographic evidence of extensive periapical and periodontal bone loss associated with a permanent mandibular molar. After thorough clinical and radiographic evaluation, a combined endodontic-periodontal lesion was diagnosed. Conventional root canal treatment was initially performed to eliminate the pulpal infection, followed by periodontal surgical intervention. Regenerative therapy was carried out using A-PRF combined with a bone graft to promote healing and regeneration of the lost periodontal structures. Postoperative follow-up demonstrated satisfactory clinical and radiographic healing, reduction in probing depth, improved periodontal attachment, and significant bone fill. This case highlights the importance of accurate diagnosis, interdisciplinary treatment planning, and the regenerative potential of A-PRF and bone grafts in managing endo-perio lesions in young patients, thereby improving prognosis and preserving the natural tooth.

Keywords: Advanced platelet-rich fibrin, Bone graft, Inter-radicular bone loss, Regenerative periodontal surgery

CASE REPORT

A 13-year-old female patient reported to the Department of Paediatric and Preventive Dentistry with a chief complaint of pain and swelling in the lower right back region of the jaw since four days [Table/Fig-1]. Patient was apparently alright five days back, then she experienced sharp shooting pain and intraoral swelling associated with the lower right posterior region. There was pus discharge from the site. The patient experienced pain during mastication and reported a history of nocturnal pain. Aggravating factors were extreme cold and hot food items, and relieving factors were medication. There was no past significant medical history. Past dental history included root

canal treatment and stainless steel crown with 26 [Table/Fig-2]. There was no significant family history and no habit history was reported. Before starting the treatment, informed consent was obtained from the patient's parents, and consent for publication of images for academic purpose was also obtained.



[Table/Fig-1]: Female patient with normal extraoral findings.



[Table/Fig-2]: Maxillary arch showing stainless steel crown in 26.

Extraoral examination showed competent lips, symmetrical facial profile, and no TMJ deviation. Intraoral examination revealed normal labial mucosa and gingiva on soft tissue examination and permanent dentition on hard tissue examination. Deep occlusal caries and periodontal pocket was seen with respect to 46 [Table/Fig-3]. Tenderness to percussion was also present with 46. To check the pulp vitality, electric pulp testing was done. Tooth 46 showed no response to electric pulp testing which indicated



[Table/Fig-3]: Mandibular arch showing deep occlusal caries with respect to 46.

loss of pulp vitality. Pus discharge was seen from the periodontal pocket. Clinical examination revealed a probing depth of 5 mm, Grade II furcation involvement, and Grade I tooth mobility according to Miller's Mobility Index. Molar relationship was Angle's class 1 molar relationship on both sides, 1 mm overjet and 1 mm overbite was present. Radiographic assessment was done using Intraoral Periapical Radiograph (IOPA) and Cone Beam Computed Tomography (CBCT).

After recording the extraoral and intraoral findings, provisional diagnosis of periapical abscess with respect to 46 was noted as the patient presented with pain, swelling, and tenderness on percussion. IOPA of 46 was taken, in which radiolucency was seen involving enamel, dentin, and pulp, and in the inter-radicular area of 46. Differential diagnosis was made as primary endodontic lesion and vertical root fracture, localised aggressive periodontitis. Based on the clinical findings of a non-vital mandibular right first permanent molar (46), sinus tract formation, tenderness on percussion, periodontal pocketing in the furcation region, and radiographic evidence of periapical radiolucency extending into the inter-radicular area, the primary differential diagnosis was narrowed to either a chronic periapical abscess with furcation involvement of endodontic origin or a primary endodontic lesion with secondary periodontal involvement. A primary periodontal lesion was excluded because the tooth exhibited pulpal necrosis, which is not a characteristic feature of periodontal disease. Vertical root fracture was also ruled out due to the absence of a history of trauma, lack of an isolated deep narrow periodontal pocket, and the patient's young age. The communication between the periapical and furcation radiolucencies, together with the non-vital pulp status, supported the final diagnosis of a primary endodontic lesion with secondary periodontal involvement (Endodontic-Periodontal lesion) associated with tooth 46 [Table/Fig-4].



[Table/Fig-4]: IOPA showing periapical radiolucency in tooth 46.

The treatment plan included: 1) Emergency phase- emergency access opening with 46; 2) Medical /Systemic phase- antibiotic prophylaxis- Tab. amoxicillin 250 mg twice a day, Tab. ibuprofen 200 mg twice a day for three days was given; 3) Preventive phase- oral hygiene instructions, diet counselling, and oral prophylaxis; 4) Preparatory phase-root canal treatment with respect to 46; 5) Corrective phase-stainless steel crown on tooth 46; 6) Maintenance phase- recall and review after every three months, oral hygiene instructions, and oral prophylaxis.

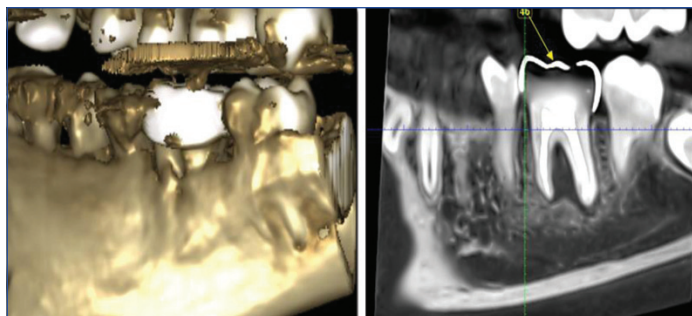
In the 1st sitting, emergency access opening was done with respect to 46; metronidazole irrigation (0.5-1%) was performed due to its potent antimicrobial activity against anaerobic bacteria, which kills micro-organisms in the root canal; and an open dressing was given. In the 2nd sitting, local anaesthetic was administered as the patient presented with slight pain and there was slight necrotic pulp on the apex, and biomechanical preparation with 4% rotary file was done, using the Protaper Gold rotary file system, first hand files were used till size #15 followed by rotary. Irrigation was done using 2.5% sodium hypochlorite for tissue dissolution, then normal saline for flushing debris, and 0.5% metronidazole solution to eliminate anaerobic micro-organisms. Calcium hydroxide dressing was placed in the canals for 15 days due to its antibacterial activity. But as the periradicular lesion was present, triple antibiotic paste was placed for a week, as it has broad antimicrobial spectrum activity and a superior efficacy against resistant endodontic pathogens [1]. A provisional diagnosis of chronic periapical abscess with furcation involvement of endodontic origin was made initially. The persistence of furcation involvement, grade I mobility, and periodontal findings during treatment led to the diagnosis of a primary endodontic lesion with secondary periodontal involvement (endodontic-periodontal lesion). Gutta-percha obturation was done, followed by a stainless steel crown over the tooth to achieve immediate coronal seal, restore structural integrity, and protect the tooth from fracture, although radiographic healing of the inter-radicular lesion was not complete, and periodontal consultation was obtained for the same [Table/Fig-5].



[Table/Fig-5]: a) Gutta-percha obturation and post-endo composite done with 46; b) SSC given with 46. (Images from left to right)

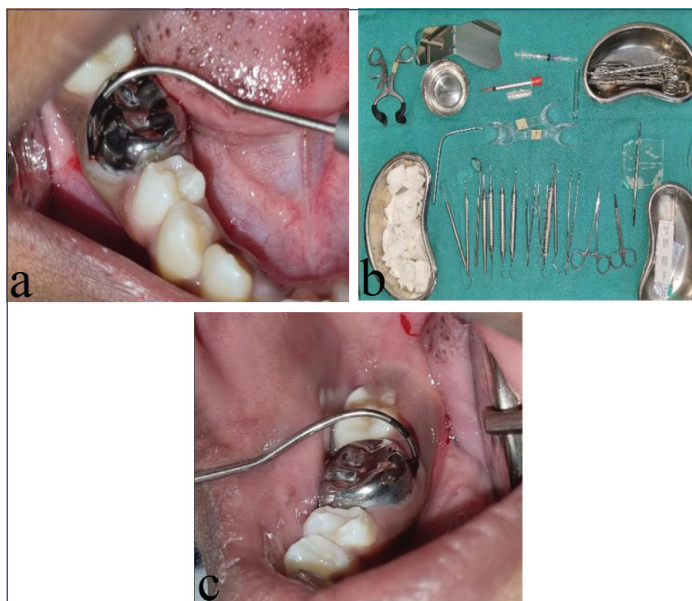
CBCT was performed for detailed evaluation of the inter-radicular and periapical bone loss associated with tooth 46. The CBCT images revealed a well-defined radiolucency involving the furcation region with significant inter-radicular bone destruction extending toward the periapical area. Loss of trabecular bone pattern and reduction in bone density were evident around both mesial and distal roots, suggestive of chronic inflammatory pathology. The lesion appeared to involve the furcation area extensively, correlating clinically with deep periodontal probing depth and grade II furcation involvement. Cortical plate thinning was also noted without evidence of root fracture or external root resorption. The three-dimensional assessment provided by CBCT helped determine the exact extent of osseous destruction and aided in treatment planning for regenerative periodontal therapy [Table/Fig-6].

During the third visit, after adequate infection control through endodontic therapy and intracanal medicament placement, the patient was prepared under strict aseptic conditions for periodontal surgical intervention. Local anaesthesia was administered to achieve



[Table/Fig-6]: CBCT showing clear view of 46 with inter-radicular bone loss. (Images from left to right)

profound anaesthesia and patient comfort. Following flap reflection and debridement, extensive granulation tissue was observed in the furcation and inter-radicular region. Thorough curettage and root surface debridement were performed to eliminate inflamed tissue and reduce microbial contamination [Table/Fig-7].



[Table/Fig-7]: a) Periodontal probing of tooth 46 showing furcation involvement in an endo-perio lesion; b) Preparation of the tooth and arrangement of the instruments; c) Periodontal probing around tooth 46 following stainless steel crown placement showing furcation involvement in an endo-perio lesion.

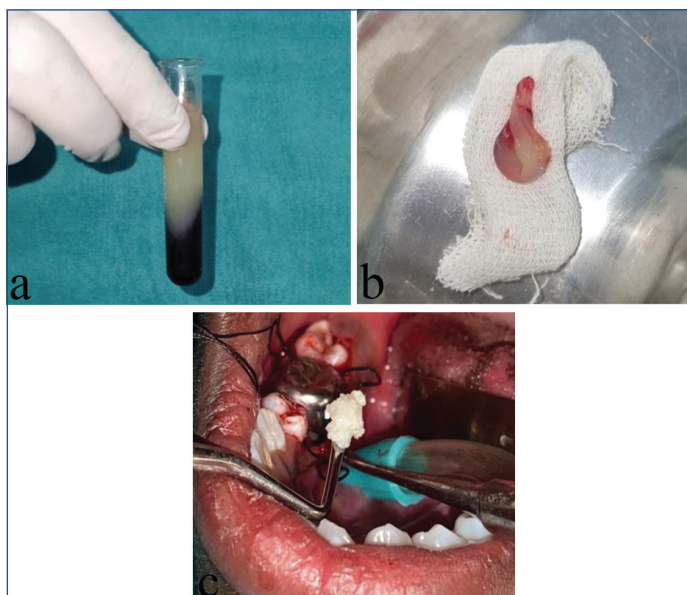
A-PRF was prepared using autologous blood collected from the patient under sterile conditions. This was achieved by spinning down the venous blood sample based on the guidelines for preparing A-PRF. A-PRF was selected owing to its superior regeneration, growth factor release, angiogenesis, and healing capacity. These properties made it possible to achieve regeneration of the periodontal structures that had been lost as a result of the endo-periodontal lesion. The A-PRF matrix was used in conjunction with the bone graft material for this purpose.

Then, a full-thickness mucoperiosteal flap was raised on the buccal aspect of 46 using a crevicular incision with vertical releasing incisions to gain access to the lesion. The flap was reflected carefully using a periosteal elevator. The choice of a flap was made because it ensures adequate access for proper debridement, root surface instrumentation, and placement of regenerative materials without disturbing the blood supply at the flap edges. The reflection of a full-thickness flap provided a clear view of the osseous defect without any compromise on the integrity of the flap to promote healing. The osseous defect was debrided and then filled with the A-PRF and bone graft. Thereafter, the flap was replaced and sutured with 3-0/4-0 silk sutures for adequate healing. Silk sutures were selected based on their availability, ease of use, and knot security, among other benefits associated with periodontal surgery [Table/Fig-8].



[Table/Fig-8]: a,b) Flap reflection- Full-thickness mucoperiosteal flap reflection exposing the furcation defect in relation to tooth 46 for regenerative endo-perio treatment. (Images from left to right)

Granulation tissue from the periodontal defect and furcation area was thoroughly curetted using Gracey and universal curettes. The defect was irrigated using normal saline to remove debris and reduce bacterial load. After debridement, a regenerative procedure was carried out using a bone graft material (Xenograft) (Osseograft®, Advanced Biotech Products Pvt. Ltd., Chennai, India), composed of deproteinized bovine-derived hydroxyapatite with osteoconductive properties, which was placed into the osseous defect. PRF membrane was placed to cover the defect and prevent epithelial downgrowth [Table/Fig-8,9].



[Table/Fig-9]: a) PRF prepared by centrifugation; b) PRF; c) PRF and bone graft placement done.

The flap was then repositioned carefully and sutured using interrupted or sling sutures with 4-0 and 5-0 non-resorbable sutures. Gentle pressure was applied to adapt the flap and control bleeding. Then during the post-operative care, periodontal dressing was applied for 10 days. Postoperative instructions were given to the patient along with a prescription of antibiotics and analgesics. The rationale for the prescription of the systemic antibiotics is justified by the presence of an active endodontic-periodontal infection associated with pus formation, loss of bone between teeth, involvement of furcation area, and surgery of the infected periodontal tissues. While systemic antibiotics are not normally necessary for periodontal surgeries in healthy patients, they are required in this case to manage any lingering infection from the anaerobic bacteria. The use of the regenerative techniques with the bone graft and PRF would make infection management crucial to ensure successful healing. Analgesics were prescribed to prevent postoperative discomfort. The patient was advised to maintain good oral hygiene and avoid trauma to the surgical site [Table/Fig-10].

Follow-up was done at three and six months showing significant bone growth. Periodical postoperative follow-up visits were scheduled for assessment of clinical and radiographic healing of the Endodontic-Periodontal lesion. Clinically, the patient showed good

progress in terms of satisfactory healing with the complete absence of pain, swelling, and pus discharge. The gingival inflammation decreased considerably, and soft tissue healing at the surgery site appeared normal with no evidence of infection or development of fistula formation. On periodontal examination, there was a decrease in the probing depth and improvement in the periodontal attachment level of tooth 46. Tooth 46 had shown progressive decrease in its probing depth, from 5 mm to 2 mm at follow-up and mobility decreased from grade 1 to no mobility.



[Table/Fig-10]: a) Sling sutures given; b) Periodontal dressing applied.

In radiographs, a decrease in periapical and inter-radicular radiolucency was seen, and bone density increase and trabecular bone formation in the furcation region was apparent. Bone fill around the root surfaces indicated a good healing response following the surgical placement of the xenograft and PRF membrane. Radiographs obtained after six months showed significant improvement in bone architecture with a marked decrease in furcation radiolucency.

The patient was asymptomatic, and chewing function was restored with no recurrence of the infection during the follow-up period. The combined treatment approach of endodontics and periodontics was successful in managing the chronic endo-perio lesion in an adolescent patient [Table/Fig-11].



[Table/Fig-11]: a) IOPA at 3-month follow-up; b) IOPA at 6-month follow-up.

DISCUSSION

Endo-perio lesion is a lesion that indicates a lesion with independent and/or dependent involvement of the pulp (or pulp space if the tooth is endodontically treated) and periodontal tissues of an individual tooth, irrespective of the pathological patterns, treatment modality or the etiological factors [2]. Lesions arising from the periodontal ligament and the adjoining alveolar bone arise from infections of the periodontium or tissues of the dental pulp. Endodontic pathosis usually causes periradicular bone loss and is usually observed in teeth with necrotic pulp. It can result in the destruction of the attachment apparatus by extension through the apical foramen or through accessory canals, which may be present at varying levels on the root surface [3]. Prevalence of endo-perio lesions is less in young children (37.1%) compared to adults (57%) [4].

Classification of endo-perio lesions according to 2018 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions, jointly developed by the American Academy of Periodontology (AAP) and the European Federation of Periodontology (EFP) given by Herrera D et al. (2018) [Table/Fig-12] [5]. The current case is Endo-perio lesion without root fracture – Grade 2.

The diagnosis of endodontic-periodontal lesions can be challenging because several conditions exhibit overlapping clinical and radiographic features. In the present case, primary endodontic

Endo-perio lesion with root damage	Endo-perio lesion without root damage in periodontitis patients	Endo-perio lesion without root damage in non-periodontitis patients
Root fracture or cracking	Grade 1 - narrow deep periodontal pocket in 1 tooth surface	Grade 1 - narrow deep periodontal pockets in 1 tooth surface
Root canal or pulp chamber perforation	Grade 2 - wide deep periodontal pocket in 1 tooth surface	Grade 2 - wide deep periodontal pocket in 1 tooth surface
External root resorption	Grade 3 - deep periodontal pocket in more than 1 tooth surface	Grade 3 - deep periodontal pockets in more than 1 tooth surface

[Table/Fig-12]: Classification of Endo-Perio Lesions [5].

lesion, vertical root fracture, and localised aggressive periodontitis were considered as differential diagnoses. A primary endodontic lesion was suspected due to the presence of pulpal necrosis and periapical pathology; however, the extent of periodontal destruction and furcation involvement indicated concomitant periodontal involvement. Vertical root fracture was ruled out because no fracture line, isolated narrow periodontal pocket, or characteristic radiographic findings were observed. Localised aggressive periodontitis was also excluded, as the lesion was limited to a single tooth with a non-vital pulp, whereas aggressive periodontitis generally affects multiple teeth with vital pulps. Careful correlation of clinical findings, pulp vitality testing, periodontal examination, and radiographic assessment facilitated the diagnosis of a true combined endodontic-periodontal lesion [6].

Endo-Perio lesions can be diagnosed using various methods like visual examination, palpation, percussion, mobility, radiographs, fistula tracking, pulp testing, and periodontal probing. All these tests were performed in the present case and therefore the diagnosis of endo-perio lesion was confirmed [7]. CBCT is usually taken to check the endodontic and periodontal status of the specific tooth, obturation, furcation area, periapical infection [8].

This case is noteworthy because it demonstrates the successful management of a combined endodontic-periodontal lesion associated with a mandibular first permanent molar in a paediatric patient, a condition that poses significant diagnostic and therapeutic challenges. The lesion likely originated from deep occlusal caries, which resulted in pulpal necrosis and subsequent spread of infection through accessory canals and the furcation region, leading to secondary periodontal involvement. The presence of a non-vital pulp, periodontal pocket, pus discharge, Grade 2 furcation involvement, and Grade 1 mobility supported the diagnosis of a primary endodontic lesion with secondary periodontal involvement.

The treatment of an immature non-vital tooth with a periodontal lesion, with the formation of intrabony defects and destruction of periodontal ligaments, is a challenge nowadays. Therefore, the addition of certain growth factors can lead to bone regeneration. Dohan DM et al., developed PRF and a second-generation platelet concentrate that does not require anticoagulants or bovine thrombin [9]. PRF is a new advancement in the concept of platelet gel therapy with easy processing without artificial biochemical alteration. PRF can be looked upon as an autologous healing material that contains leukocytes, platelets, and a spectrum of crucial healing proteins in a high-concentration fibrin matrix. The application of PRF in the management of endodontic-periodontal lesions is a new modality in paediatric dentistry [10]. PRF was used in the current case to cover the defect and prevent epithelial downgrowth and to accelerate the healing of bone.

The treatment approach was based on elimination of the endodontic source of infection before initiating regenerative periodontal therapy. Calcium hydroxide was initially used as an intracanal medicament because of its well-established antibacterial properties and ability to neutralise bacterial endotoxins. Due to the persistence of the lesion and furcation involvement, triple antibiotic paste was subsequently

placed to enhance microbial disinfection against resistant endodontic pathogens. Following successful canal disinfection, obturation was completed and a stainless-steel crown was placed to provide coronal seal and structural reinforcement of the compromised tooth. Periodontal regenerative therapy was then undertaken using PRF.

The PRF was preferred over Platelet-Rich Plasma (PRP) because it is a second-generation platelet concentrate that does not require anticoagulants or exogenous thrombin during preparation. PRF provides a sustained release of growth factors, including platelet-derived growth factor, transforming growth factor- β , and vascular endothelial growth factor, which promote angiogenesis, wound healing, and bone regeneration. In addition, its fibrin matrix serves as a scaffold for cellular migration and tissue maturation, making it particularly suitable for periodontal regeneration in furcation defects.

Clinical and radiographic outcomes demonstrated favourable healing. Clinically, there was resolution of pain and pus discharge, reduction in probing depth from 5 mm to 2 mm, improvement in periodontal attachment level, and reduction of mobility from Grade 1 to physiologic mobility. Radiographically, progressive bone fill was observed in the furcation and periradicular regions, indicating successful resolution of the inflammatory lesion. The correlation between clinical improvement and radiographic evidence of bone regeneration supports the effectiveness of the multidisciplinary treatment approach.

Similar findings have been reported in previous studies evaluating the management of endodontic-periodontal lesions. Karunkar P et al., reported PRF, "a faster healing aid" in the treatment of combined lesions [11]. Likewise, Dohan DM et al., highlighted the regenerative potential of PRF owing to its favourable growth-factor release profile and biologic scaffold properties [9]. The present case corroborates these findings and further demonstrates the usefulness of PRF in managing endodontic-periodontal lesions in young permanent teeth.

Fang F et al., said that basic periodontal therapy combined with root canal treatment results in better clinical outcomes in endodontic-periodontal lesions than root canal treatment alone [12]. Ye Q et al., conducted a study where two groups were taken; one group being root canal treatment alone, and the 2nd group being root canal treatment along with periodontal treatment, and the 2nd treatment option was better as it gave better results as inflammatory markers (TNF α , IL-1 β , and hs-CRP) showed favourable outcomes [13].

Parikh B et al., reported a case of chronic periodontitis with nonvital teeth 11 and 21, treated with RCT and curettage of the defect. At the site of the larger defect only (the left-side) PRP gel was placed. The side with PRP healed better than the other side, suggesting that PRP is an excellent material [14].

Manoj K et al., used MTA for retrograde apical seal due to its good sealing ability, biocompatibility, antibacterial properties, and capacity to promote hard-tissue formation along with PRF and xenograft for treatment of the periapical lesion. The result was good due to numerous growth factors like TGF β 1 and 2, epidermal growth factor, IGF, and PDGF. It contains natural fibrin framework and prevents from proteolysis. PRF increases proliferation, collagen related protein expression of human osteoblasts and cell attachment [15].

Ardila CM et al., stated that in patients having endo-perio lesion with previous treatment of gutta-percha or mineral-trioxide aggregate, management of PRF and titanium-prepared PRF along with the use of diode laser is the appropriate treatment [16].

The stainless steel crown was placed primarily to achieve an immediate coronal seal and prevent fracture of the structurally compromised tooth. However, the timing of definitive coronal restoration in teeth with persistent endodontic-periodontal involvement remains controversial and may be considered a

limitation of the present case. Continued follow-up is necessary to confirm complete healing of the furcation lesion.

Diagnosis and multidisciplinary treatment modalities play a crucial role in effectively managing endodontic-periodontal lesions. This case study highlights how endodontic treatment in conjunction with periodontal regenerative techniques can aid in the healing of such lesions, retain natural teeth, and enhance the outcome of severely affected endodontic-periodontal teeth in children. Though PRF has advantages and is beneficial and has shown good results, there are certain limitations of this study, which include short follow-up period of six months, histological evaluation was not conducted, the individual contribution of A-PRF and xenograft to the healing outcome could not be determined because both regenerative materials were used simultaneously. Further studies are required for better results.

CONCLUSION(S)

Combined endodontic-periodontal lesions pose a significant diagnostic and therapeutic challenge due to the complex inter-relationship between pulpal and periodontal tissues. Successful management requires accurate diagnosis, proper treatment sequencing, and an interdisciplinary approach. In the present case, conventional endodontic therapy alone was insufficient because of persistent inter-radicular bone loss; however, the adjunctive use of regenerative periodontal surgery with xenograft and autologous A-PRF resulted in significant clinical and radiographic bone regeneration. This case highlights that a coordinated endodontic-periodontal strategy can effectively preserve natural dentition and supporting structures in adolescent patients, emphasising the importance of multidisciplinary management and regular follow-up for long-term success.

REFERENCES

- [1] Sato I, Ando-Kurihara N, Kota K, Iwaku M, Hoshino E. Sterilization of infected root-canal dentine by topical application of a mixture of ciprofloxacin, metronidazole and minocycline in situ. *Int Endod J*. 1996;29(2):118-24.
- [2] Ahmed HM. Different perspectives in understanding the pulp and periodontal intercommunications with a new proposed classification for endo-perio lesions. *ENDO (Lond Engl)*. 2012;6(2):87-104.
- [3] Verma PK, Srivastava R, Gupta KK, Srivastava A. Combined endodontic-periodontal lesion: A clinical dilemma. *Journal of Interdisciplinary Dentistry*. 2011;1(2):119-24.
- [4] Babu A, Saha A, Vairagade SP, Kumar A, Arya A, Tekam DA, Nayak R. Prevalence rate of endodontic-periodontic lesion in young versus adult patients: A comparative analysis. *Journal of Pharmacy and Bioallied Sciences*. 2025;17(Suppl 3):S2599-S2601.
- [5] Herrera D, Retamal-Valdes B, Alonso B, Feres M. Acute periodontal lesions (periodontal abscesses and necrotizing periodontal diseases) and endo-periodontal lesions. *J Clin Periodontol*. 2018;45(Suppl 20):S78-S94. Doi: 10.1111/jcpe.12941.
- [6] Rotstein I, Simon JH. Diagnosis, prognosis and decision-making in the treatment of combined periodontal-endodontic lesions. *Periodontology* 2000. 2004;34(1):165-203.
- [7] Shenoy N, Shenoy A. Endo-perio lesions: Diagnosis and clinical considerations. *Indian J Dent Res*. 2010;21(4):579-85.
- [8] Shumilovich BR, Rostovtsev VV, Kunin VA, Bishtova IS, Paul RA, Tsesis I, et al. Endodontic management of endo-perio lesions. *Appl Sci*. 2021;11(23):11293.
- [9] Dohan DM, Choukroun J, Diss A, Dohan SL, Dohan AJ, Mouhyi J, et al. Platelet-rich fibrin (PRF): A second-generation platelet concentrate. Part I: Technological concepts and evolution. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod*. 2006;101(3):e37-e44.
- [10] Nagaveni NB, Kumari KN, Poornima P, Reddy VS. Management of an endo-perio lesion in an immature tooth using autologous platelet-rich fibrin: A case report. *J Indian Soc Pedod Prev Dent*. 2015;33(1):69-73.
- [11] Karunakar P, Prasanna JS, Jayadev M, Shravan GS. Platelet-rich fibrin, "a faster healing aid" in the treatment of combined lesions: A report of two cases. *J Indian Soc Periodontol*. 2014;18(5):651-55.
- [12] Fang F, Gao B, He T, Lin Y. Efficacy of root canal therapy combined with basic periodontal therapy and its impact on inflammatory responses in patients with combined periodontal-endodontic lesions. *Am J Transl Res*. 2021;13(12):14149-56.
- [13] Ye Q, Wei D, Chen Z, Zhang W. Efficacy and inflammatory responses of root canal therapy plus periodontal non-surgical treatment for periodontal-endodontic combined dental lesions. *Am J Transl Res*. 2024;16(8):4190.
- [14] Parikh B, Navin S, Vaishali P. A comparative evaluation of healing with computed tomography scan of bilateral periapical lesions treated with and without the use of platelet-rich plasma. *Indian J Dent Res*. 2011;22(3):497-98.

[15] Manoj K, Lora M, Asmita GS, Swagatika N. Management of a large non healing periapical lesion by combined endodontic-periodontic approach: A case report. Endodontology. 2015;27(1):77-79.

[16] Ardila CM, Vivares-Builes AM. Clinical efficacy of treatment of endodontic-periodontal lesions: A systematic scoping review of experimental studies. Int J Environ Res Public Health. 2022;19(20):13649.

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