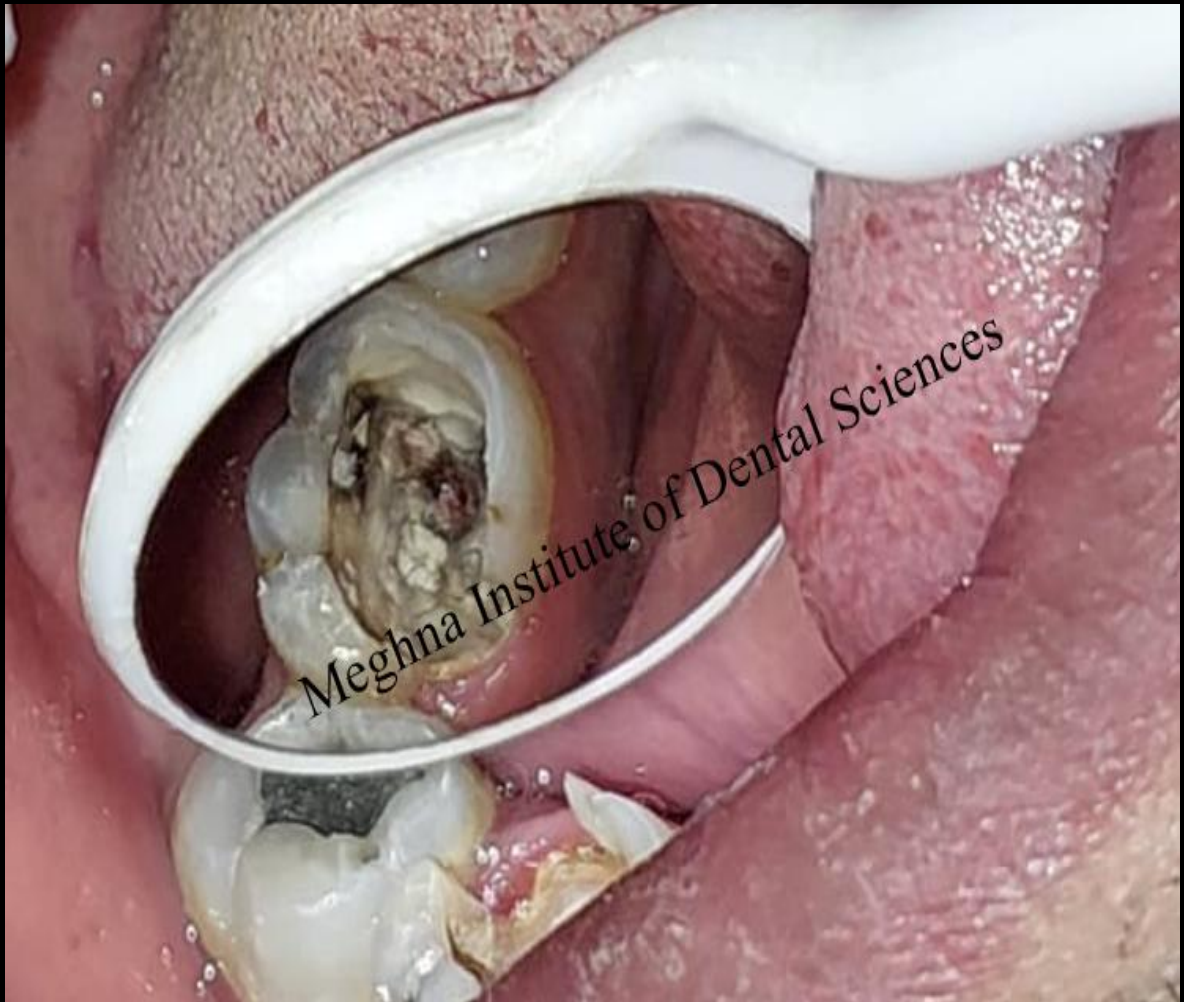


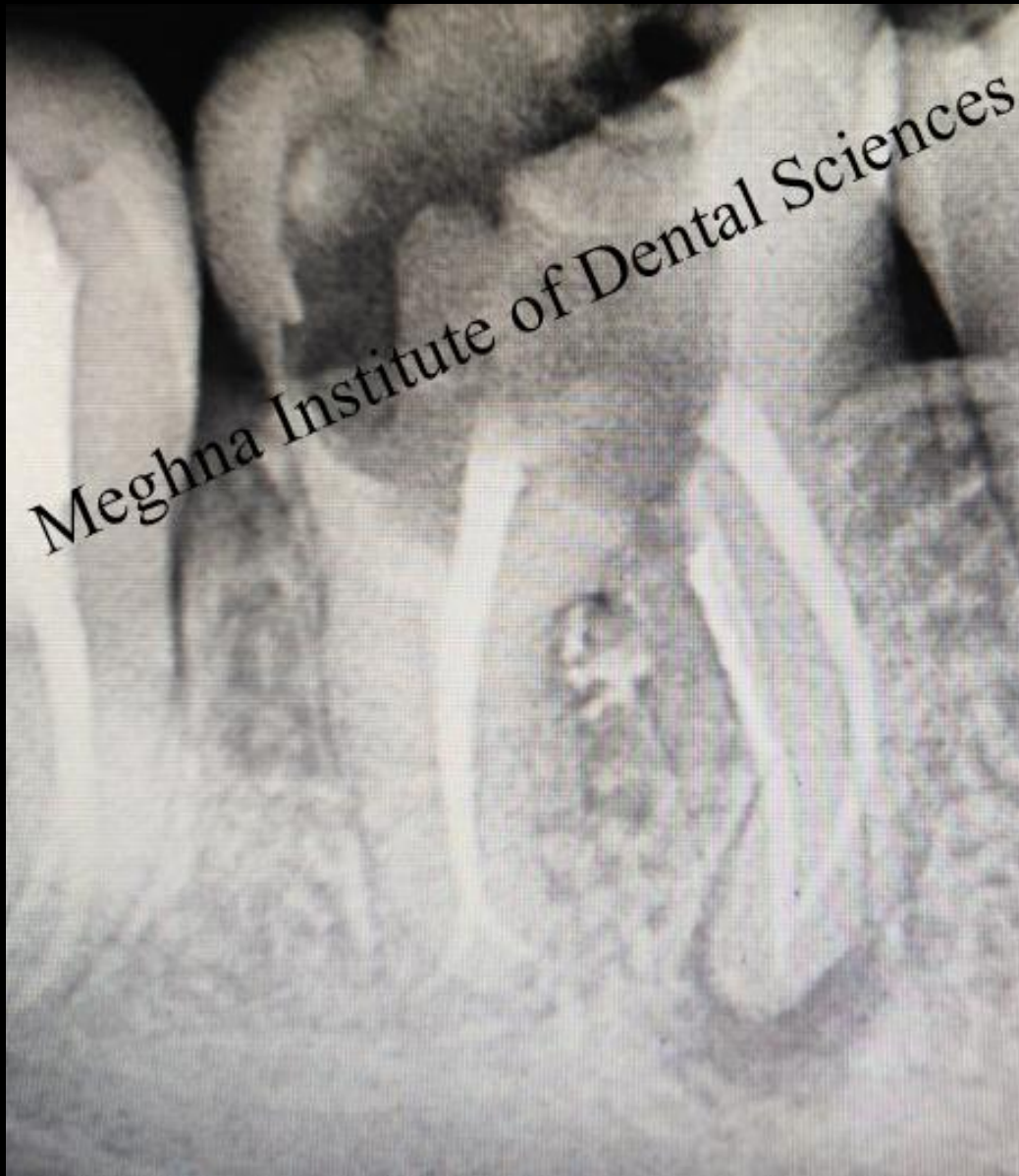
Management of Root Canal-Treated Teeth with File Separation and Furcal Perforation

- "A 27-year-old male patient reported to the Department of Conservative Dentistry and Endodontics with a chief complaint of pain while chewing and food lodgment in the lower right back tooth region for the past 6 months. "
- Clinical examination revealed that the tooth had been previously root canal treated and exhibited extensive loss of coronal tooth structure, a large endodontic access cavity and furcal perforation with dislodged post endodontic restoration.



PRE-OP CLINICAL IMAGE IRT 46

- Radiographic examination revealed a previously root canal–treated posterior tooth with a separated instrument fragment within the root canal, and radiolucency in the furcation region suggestive of furcal perforation.

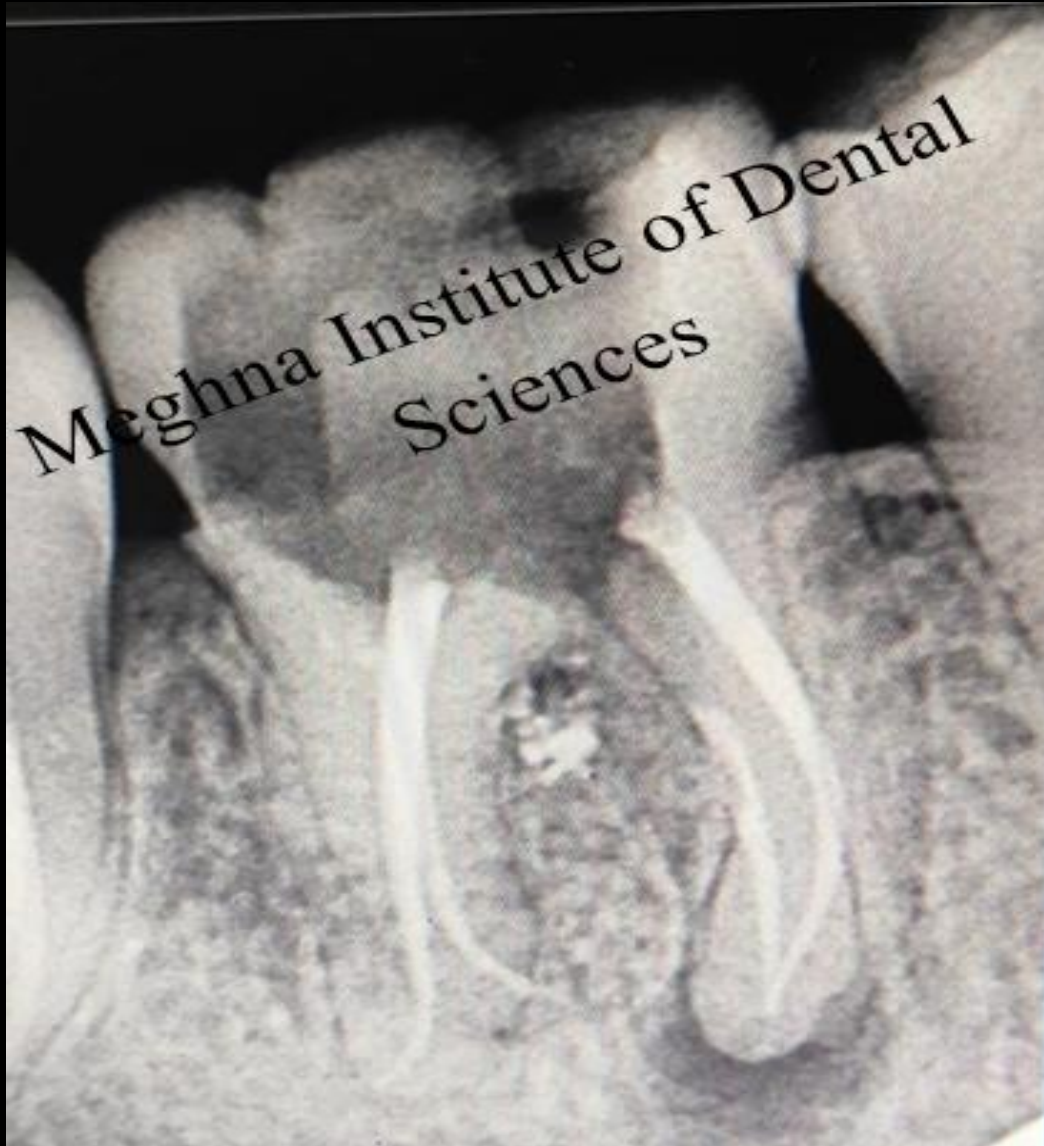




PRE-OP RADIOGRAPHIC IMAGE IRT 46

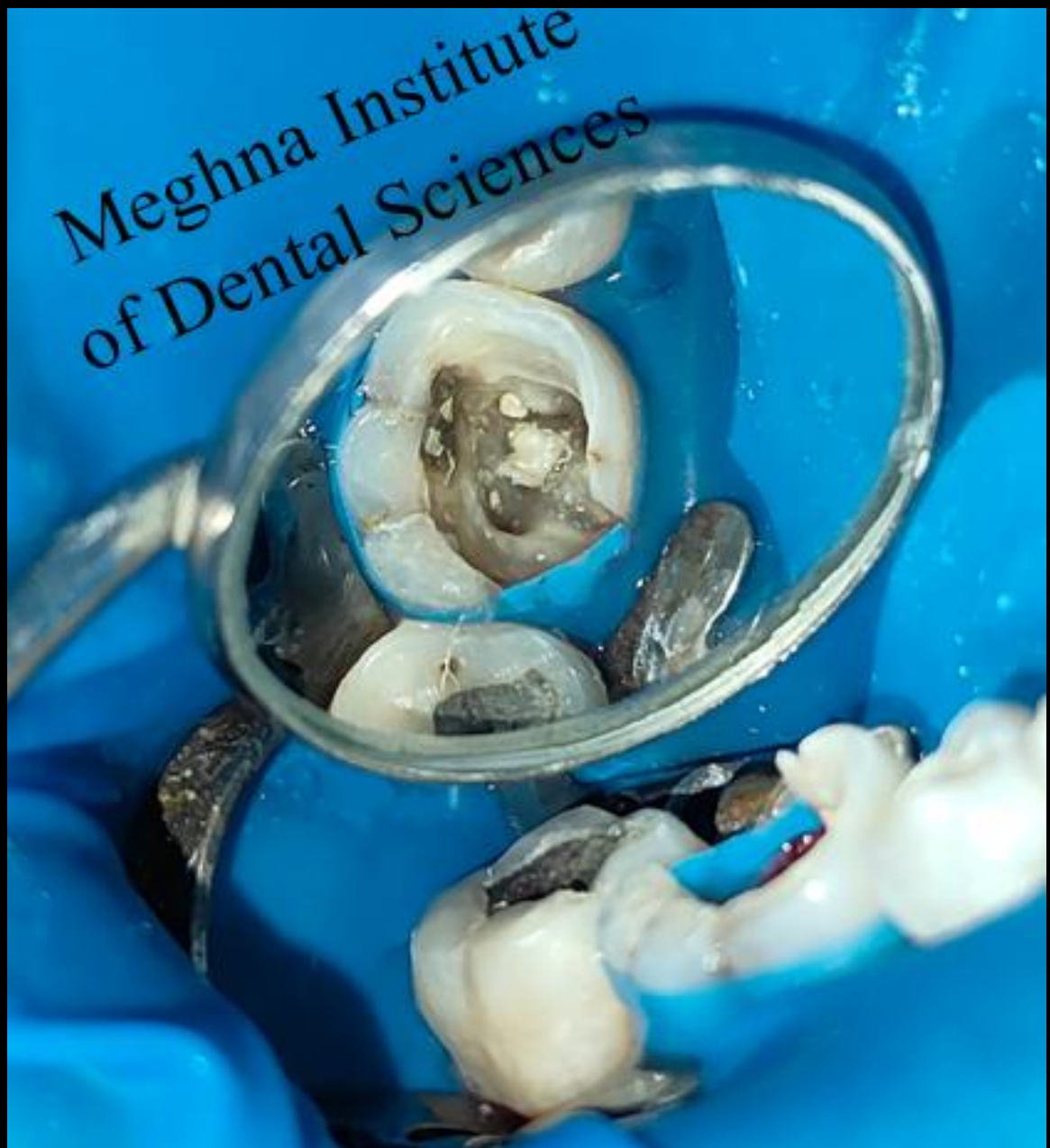
- Based on the clinical and radiographic findings, a diagnosis of previously **Root canal-treated tooth with symptomatic apical periodontitis, complicated by iatrogenic furcal perforation and a separated endodontic instrument**” was made.
- After establishing adequate access and creating space around the coronal aspect of the fragment, H-files were introduced alongside of the separated fragment. Three H-files were engaged around the fragment and gently braided to obtain a mechanical grip. The braided files were then withdrawn coronally with the separated instrument. Complete retrieval was confirmed clinically and radiographically.





Iatrogenic furcation perforation was identified and isolated. The perforation site was thoroughly irrigated and disinfected, followed by achievement of hemostasis. MTA Putty was delivered to the furcation perforation site and gently adapted and condensed using suitable pluggers. Adequate adaptation of the MTA Putty and sealing of the furcation perforation were confirmed clinically and Radiographically.

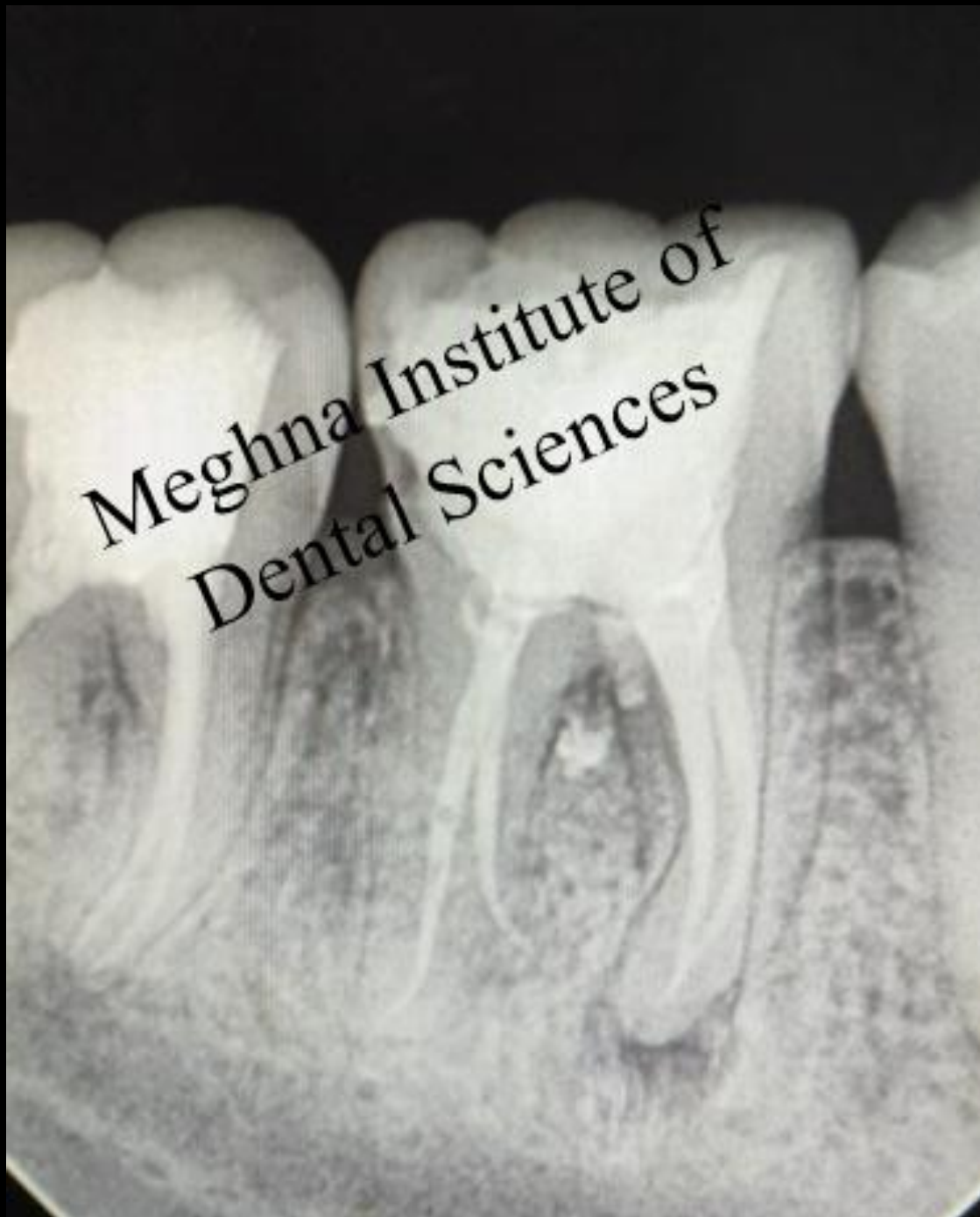




Following repair of the iatrogenic furcation perforation with MTA Putty, the root canal was re-entered, and gutta-percha was removed using appropriate rotary retreatment files. The canals were subsequently cleaned and shaped.



Post-operative radiograph showing retrieval of the separated file and, successful MTA Putty repair of the furcation perforation, and adequate root canal obturation with GP and bioceramic sealer.



POST OP IRT 46