

CASE REPORTS

Case 1: Unusual cystic lesion in the maxilla after orthodontic treatment

Step 1

An 11-year female patient approached a dental center where facility for orthodontic treatment was available. Her chief complaint was protruding upper front teeth for which she was treated with twin block functional appliance therapy. (Figure 2)

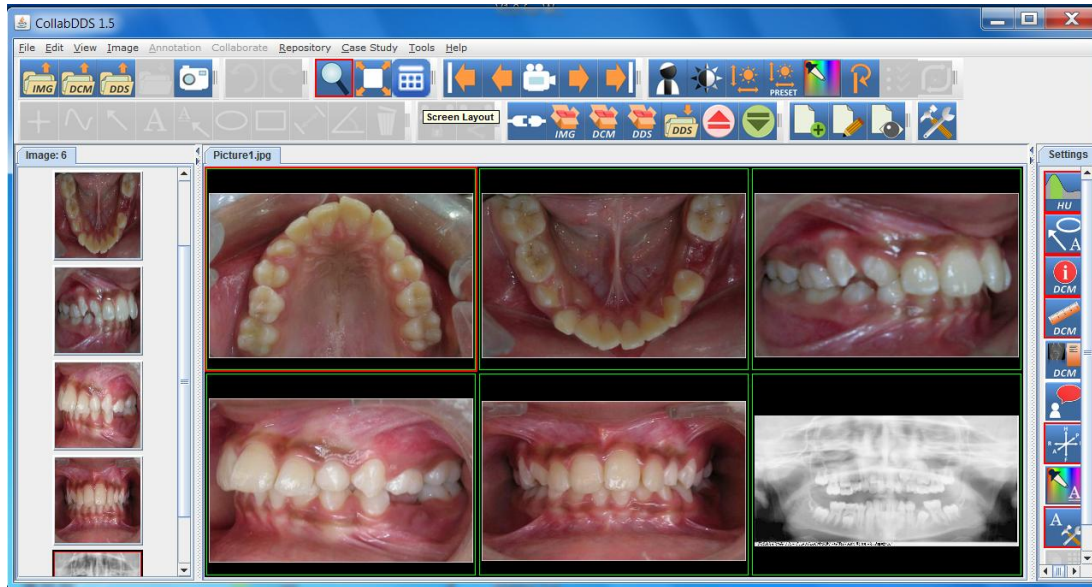


Fig. 2

Step 2

The post-functional OPG, which was taken after 10 months of twin block therapy, showed radiolucency between lateral incisor and canine on right side which was not evident in pretreatment OPG. The treating orthodontist was worried for root resorption or non-vital teeth leading to cysts or similar pathologic conditions for which he wanted an expert opinion.

The treating orthodontist at remote center uploaded the images in CollabDDS interactive software for expert opinion.

After thorough inspection of radiographs and clinical photographs, expert advised him to check for following:

- | | |
|-------------------------------------|------------------------|
| 1. History of trauma | - No history of trauma |
| 2. Vitality test for adjacent teeth | - Positive |

- 3. Caries lesions of adjacent teeth
- 4. Gingival health

- Negative
- Good

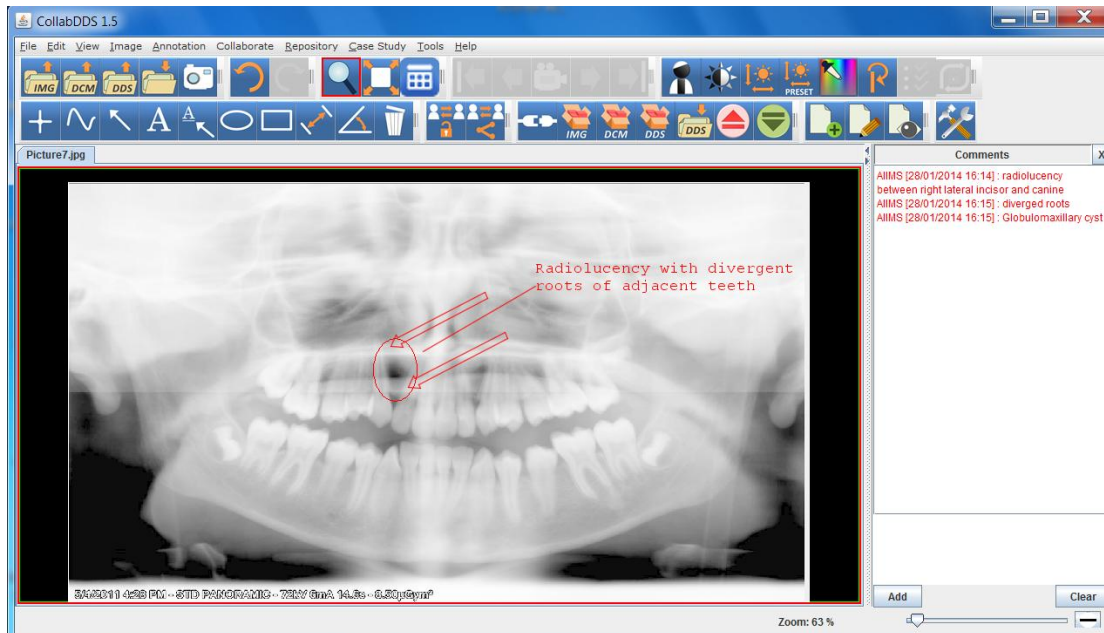


Fig. 3

In addition, the expert noticed that the roots of the adjacent teeth were diverging (Figure 3). Based on the clinical and radiographic findings case was diagnosed as Globulomaxillary cyst. The differential diagnosis may include laterally displaced apical periodontal cyst, odontogenic keratocyst, and lateral periodontal cyst.

Management which was advised included

Surgical enucleation of cyst

- Intentional root canal treatment of adjacent teeth

Diagnosis of Globulomaxillary cyst was confirmed from pathological investigations of enucleated cyst.

Step 3:

OPG which was taken three months after intentional root canal treatment of adjacent teeth and surgical enucleation of cyst showed bone formation between the right lateral incisor and canine. (Figure 4)

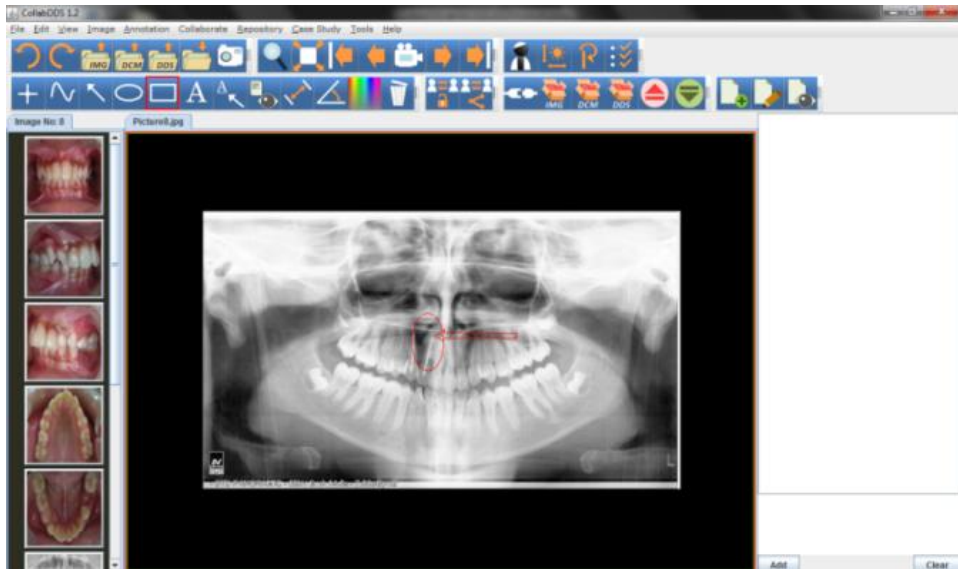


Fig. 4

This case study has been enacted as to explain possible applications of CollabDDS.

Case 2: A patient with fibromatosis seeking orthodontic treatment.

Step: 1

A nine year old female patient approached a remote dental care centre for abnormal gums and protruding teeth. Dental personnel at remote centre was unsure of its cause, diagnosis and further treatment protocol for the patient. Being a CollabDDS user, dentist from a remote centre uploaded the clinical photographs and shared it with expert through CollabDDS interactive software. (Figure 5)

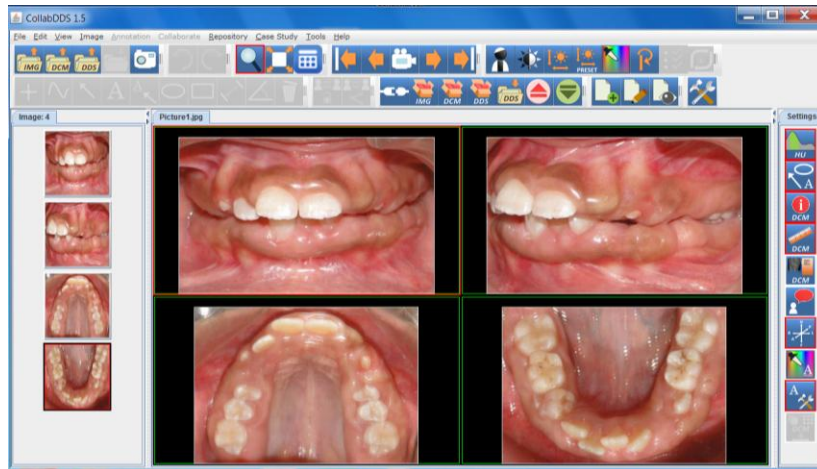


Fig. 5

Step: 2

Expert from specialized center like AIIMS or similar institution discussed regarding patient in real time (shown in right side of collabDDS GUI) with doctor at remote primary health center. Such discussions can be either audio/video or text. He was advised to take a detailed family and medical history, use of medications, such as cyclosporine A, phenytoin, and nifedipine and systemic conditions, along with thorough clinical examination. (Figure 6)

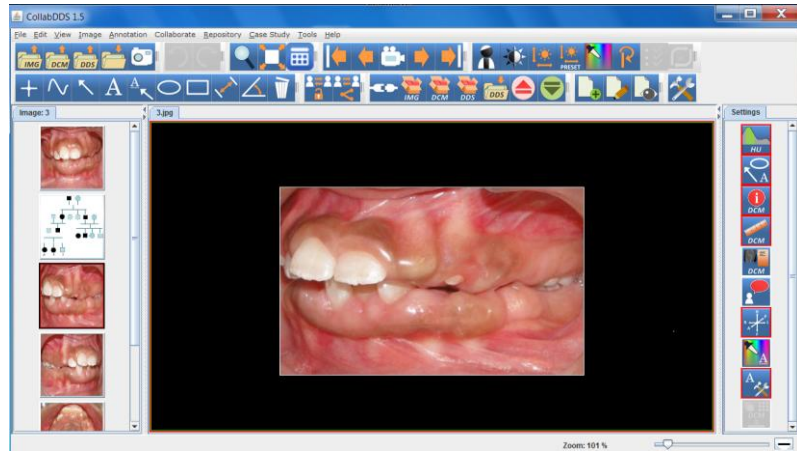


Fig. 6

The doctor at remote center then provided more information regarding affected gums. Gingival enlargement was dense, diffuse, smooth, or nodular overgrowth on both arches, appeared about the time of eruption of the permanent incisors. Also it was not painful and showed no tendency for hemorrhage.

Step: 3

Based on additional information on family history and clinical findings, case was diagnosed as Familial gingival fibromatosis. (Figure 7)

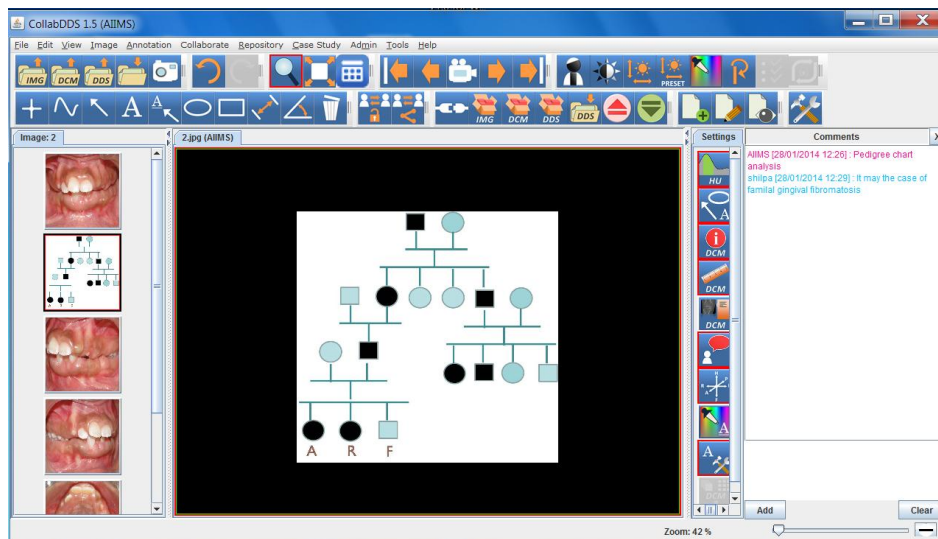


Fig. 7

Management advised included.

1. Surgical removal of fibromatous gingiva

2. Frequent check-up visits to periodontist as it has tendency for reoccurrence
3. Maintenance of good oral hygiene through-out the orthodontic treatment.

This case study has been enacted as to explain possible applications of CollabDDS.

List of Participating Institutions

- National Informatics Center (NIC), New Delhi.
- All India Institute of Medical Sciences (AIIMS), New Delhi.
- Indian Institute of Technology (IIT-B), Mumbai.
- CSIR-Central Scientific Instruments Organisation (CSIO), Chandigarh



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