

Role of Team Approach in Orthodontics-Clinical Case Series

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Abstract: A well known quote said by cricket legend Sir DON BRADMAN 'Talent wins games, but team work and intelligence wins championship' is also appropriate for dentistry. The team approach to dentistry promotes continuity of care that is comprehensive, convenient, cost effective and efficient. This article presents some of the orthodontic clinical cases treated in collaboration with other dental specialities namely conservative dentistry, oral surgery, periodontics, prosthodontics to produce optimal results.

Key-Words-Team work, Interdisciplinary approach, smile makeovers

I. Introduction

The team approach to dentistry promotes continuity of care that is comprehensive, convenient, cost effective and efficient.

Individually the best treatment imparted by a specialist may not help to achieve the optimum results for the patient, but the multidisciplinary approach to treatment can be very effective, as one specialist cannot deal with all aspects of a complicated problem. The interdisciplinary approach brings in that missing collaborative element and allows all specialists involved to conduct a dialogue concerning patient care.

Orthodontics is that area of dentistry which is concerned with the supervision, guidance and correction of the growing or the mature dento-facial structure including those conditions requiring tooth-movement or correction of malrelationships and malformation of their related structures and the adjustment of relationships between and among teeth and facial bones by application of forces and/or the stimulation and redirection of functional forces within the cranio-facial complex.

A.ORTHODONTICS-ORAL DIAGNOSIS FUSION

Diagnosis and Treatment planning is a first step in a comprehensive orthodontic treatment. Diagnosis is the recognition and systemic designation of anomalies, the practical synthesis of findings, permitting therapy to be planned and indication to be determined, thereby enabling the doctor to act.² Various intra-oral and extra-oral radiographs are essential diagnostic aids for orthodontic diagnosis. Radiographs are used to assess general development of the dentition, presence, absence and state of eruption of the teeth to establish presence or absence of supernumerary teeth to **diagnose, locate and orient the impacted teeth** to study character of the alveolar bone to study the axial inclination of the root of the teeth. They are valuable aid in cranio-dento-facial analysis.

B.ORTHODONTICS-ORAL SURGERY INTEGRATION

Surgical procedures are carried out as an adjunct or in conjunction with orthodontic treatment. These procedures are usually carried out to eliminate an etiological factor or to correct severe dentofacial abnormalities that cannot be treated by alone growth modification procedures or orthodontic camouflage. Surgical procedures include minor and major procedures. Minor surgical procedures are therapeutic extraction, serial extraction, extraction of carious, malformed, supernumerary or impacted tooth, **surgical uncovering of impacted teeth**, corticotomy, transplantation of teeth. Major procedures include orthognathic surgery, cosmetic surgeries, surgeries for cleft lip and palate, surgically assisted RME.^{3,4}

C.ORTHODONTICS-PROSTHODONTICS BRIDGING

Prosthodontics is one of the old speciality in dentistry that helps orthodontics in some conditions like replacement of missing teeth, esthetics smile makeover by porcelain jacket crowns (PJs), veneers etc. Implant is one of the recently added armamentarium in prosthetic dentistry. **Replacement of missing teeth by implants** following orthodontic treatment is a well developed treatment alternative that is presently followed by many orthodontists.

D.ORTHODONTICS-CONSERVATIVE DENTISTRY AMALGAMATION

Smile design principles give us a guide as to what is considered aesthetic. Undoubtedly, visual communication has done huge amounts to allow patients to see the potential improvements available. The media

constantly bombards the public with before and after images of weight loss, breast enhancement, facial aesthetics, and of course, cosmetic dentistry. Even to the most cynical, transformations of the human form do attract attention. Principles of conservative dentistry help orthodontics in achieving outstanding smile makeovers. **Building up the malformed teeth using composites** gives excellent results. Vital and Non-vital **bleaching procedures**, veneers, PJs etc. help orthodontics to achieve final aesthetics.^{8,9}

E.ORTHODONTICS-PERIODONTICS SPLINTING

Orthodontic treatment aims at providing an acceptable functional and aesthetic occlusion with appropriate tooth movements. These movements are strongly related to interactions of teeth with their supportive periodontal tissues. In recent years, because of the increased number of adult patients seeking orthodontic treatment, orthodontists frequently face patients with periodontal problems. **Aesthetic considerations, like uneven gingival margins or functional problems resulting from inflammatory periodontal diseases should be considered in orthodontic treatment planning.** Furthermore, in cases with severe periodontitis, orthodontics may improve the possibilities of saving and restoring a deteriorated dentition. In modern clinical practice, the contribution of the orthodontist, the periodontist and the general dentist is essential for optimized treatment outcomes. Proper emphasis on plaque control procedures prior to initial banding, altered and reinforced during the entire period of orthodontic treatment, may well minimize the inflammatory lesion often found during therapy. Gingival, periodontal, and mucogingival problems should be treated as soon as they are diagnosed.^{5,6,7}

With the team approach, herewith we are presenting a few cases showing the ultimate outcome with the help of team work.

II. Clinical Case Series Showing Team Work With Orthodontics

A.ORTHODONTICS, ORAL DIAGNOSIS AND ORAL SURGERY COLLABORATION

CASE-1-IMPACTED LEFT CENTRAL INCISOR



(PRE TREATMENT RECORDS)

SURGICAL EXPOSURE AND BONDING



AFTER TRACTION OF IMPACTED INCISOR

CASE-2-BILATERAL IMPACTED CANINES





PRE-TREATMENT RECORDS

LEFT SIDE-SURGICAL EXPOSURE, BRACKET BONDING AND TRACTION



RIGHT SIDE-SURGICAL EXPOSURE, BONDING AND TRACTION





B.ORTHODONTICS PROSTHODONTICS TEAM-WORK

CASE-1;REPLACEMENT OF MISSING LATERAL INCISORS BILATERALY BY IMPLANTS



(Pre-Treatment records)

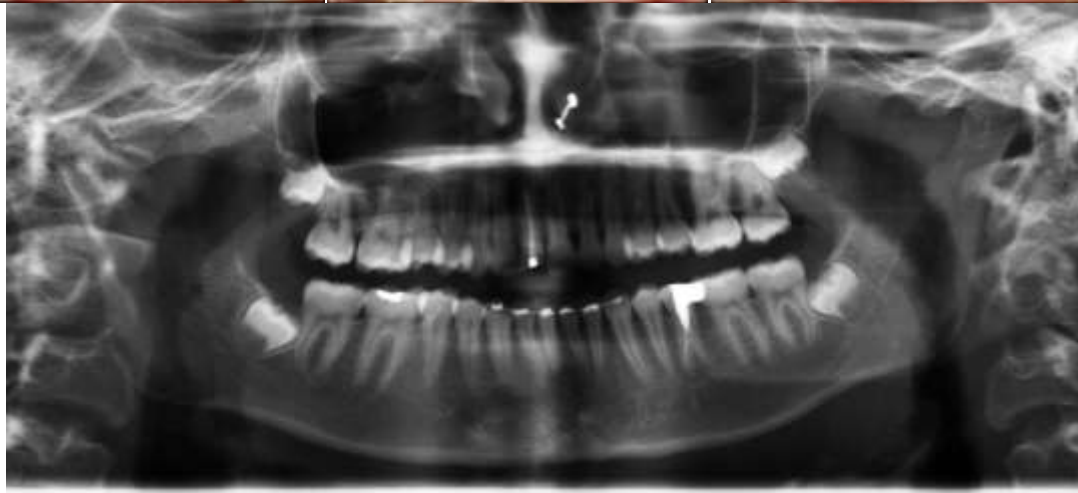


(Following orthodontic treatment, replacement of missing lateral incisors by implants)

Case-2; Aesthetic correction of root canal treated and fractured tooth by PJC following orthodontic treatment.



(PRE TREATMENT RECORDS)



(POST TREATMENT RECORDS)



PRE-TREATMENT SMILE

POST-TREATMENT SMILE

C.ORTHODONTICS-RESTORATIVE DENTISTRY TEAM-WORK

CASE-1; AESTHETIC BUILD-UP OF PEG-SHAPED LATERAL INCISOR BY COMPOSITE-



(PRE-TREATMENT)



(FOLLOWING ORTHODONTIC TREATMENT)



(FOLLOWING LATERAL INCISOR BUILD-UP)

CASE 2-NON-VITAL BLEACHING FOLLOWED BY COMPOSITE VENEERING



(PRE TREATMENT PHOTOGRAPHS)



(FOLLOWING ORTHODONTIC TREATMENT)



(FOLLOWING NON-VITAL BLEACHING OF UPPER RIGHT CENTRAL INCISOR)



(FOLLOWING COMPOSITE VENEERING OF SIX ANTERIOR TEETH)

D.ORTHODONTICS-PERIODONTICS TEAM-WORK

Gingivectomy during orthodontic treatment due to inflammatory gingival enlargement

PRE-TREATMENT



GINGIVECTOMY- INCISION



AFTER 1 MONTH



III. Discussion

In the recent times, the awareness about the benefits of a healthy and esthetically pleasing dentition has significantly increased. Our knowledge of dental diseases and methods available to restore the mutilated dentition has also leaped exponentially. Over the past two decades, there has been a paradigm shift in the approach to treatment planning for dental patients. The practice of dentistry is changing from a single specialist or general dentist treating the patient to that of a team approach. This team approach enables the utilization of skills and expertise of clinicians of different specialities.

Objectives of treatment by Team-work

The objectives of treatment by team work are to

- Idealize and streamline therapy
- Avoid unnecessary procedures
- Decrease treatment time
- Boost individual team members' results
- Improve prognosis
- Enhance professional relationships
- Increase satisfaction of both patient and doctor

Some of the conditions commonly treated with interdisciplinary care include replacement of missing teeth, aesthetic smile makeovers by using veneers& composites, various periodontal abnormalities, management of impacted teeth etc. The wide range and complexity of problems that these patients present with, necessitates a highly organized method of collaboration between team members to achieve superior results.

IV. Conclusion

In orthodontics, fitting the appliance is only the start of the process, orthodontics is a continuing story and the mutual long-term interrelationship should be realized and maintained to optimize the chances of attaining our treatment goals. This can be achieved very nicely by team work. The team work approach brings in that missing collaborative element and allows all specialists involved to deliver the best for ultimate patient care.¹⁰

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