CASE SUMMARY

A 28 year old female patient who had an implant placed in the UR3 region due to hypodontia was referred for mucogingival surgery on the buccal surface of the implant supported crown to provide thickness of attached gingivae.

PATIENT DETAILS

Initials: SW

Sex: Female

Date of birth: 18.09.85

Age at start of treatment: 28 years

PRESENTING COMPLAINT

Tenderness while brushing near implant crown, greyish hue of implant visible, patient would like to have it thickened if possible.

RELEVANT MEDICAL, DENTAL, SOCIAL HISTORY

No positive medical findings.

11.02.09: Implant placed in UR3 (10mm NP tapered select) region due to hypodontia. Mid buccal threads exposed at surgery, 7mm from crest. Bio-Oss +Guide place and cover screw.

5.8.9   : Second stage and 3mm healing abutment fitted.

Non-smoker and did not consume alcohol.

Electric Brush X2/ day

EXTRA ORAL EXAMINATION

Favourable smile line (Fig.1)

Fig. 1 Baseline photograph Facial view

INTRA ORAL EXAMINATION (Fig.2)

Healthy gingiva, good oral hygiene.

Thin gingivae on the buccal aspect of the implant UR3.

Implant supported crown in relation to UR3.

Cervical restorations UR4, 5

Teeth present

7 6 5 4 Im 2 1	1 2 3 4 5 6 7
7 6 5 4 3 2 1	1 2 3 4 5 6 7

BPE:

1	1	1
0	1	1

OCCLUSAL FEATURES

Static:

Skeletal Class I, Incisal Class I relationship.

Overbite: 2mm

Overjet: 2mm

Dynamic:

ICP coincident with RCP.

Group function left and Right

Protrusion

1	1
1	1

PRE TREATMENT PHOTOGRAPHS:

Fig. 2 Intra photograph

- Greyish hue on buccal of UR3

- Palatal tissues around premolar region look thick for potential donor sites.

- Tissues in maxillary tuberosity not think enough for taking the connective tissue graft.
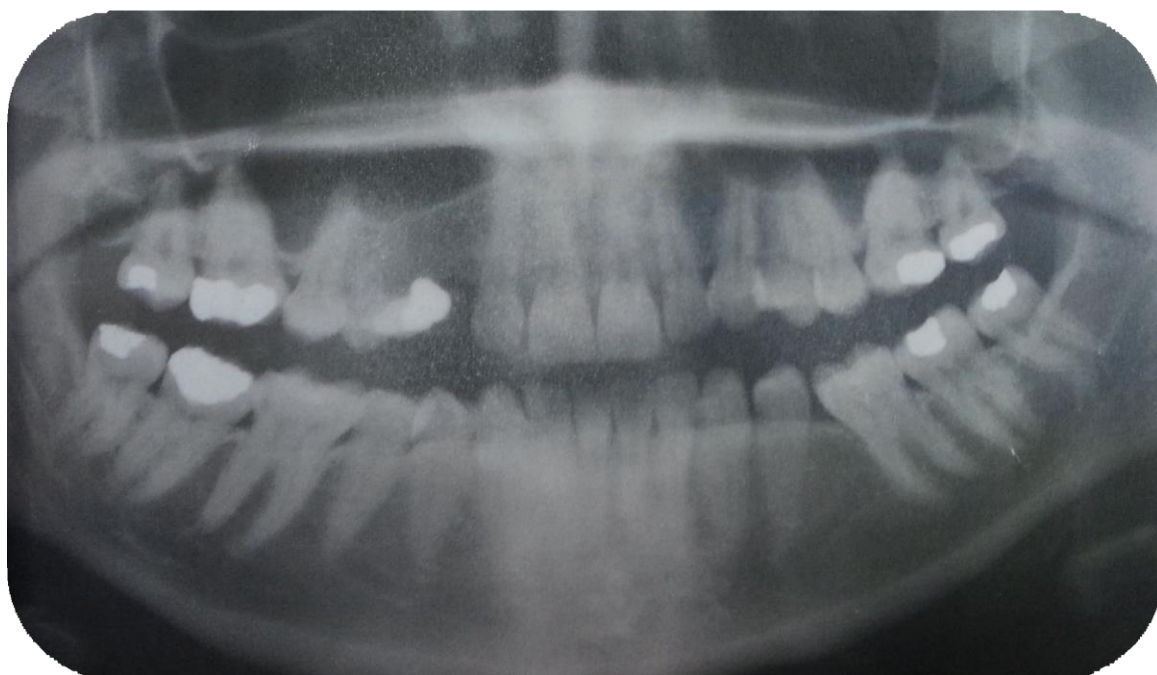
SPECIAL INVESTIGATIONS

Radiographic examination:

Fig. 3 Ortho pantomo graph by GDP, note the anterior extent of the maxillary sinuses and adhesive bridge in UR3.

| 24.11.08 | 25.02.09 | 03.12.10 |

Fig. 4 IOPA before, at and after implant placement.

DIAGNOSIS

Thin attached mucosa on the implant surface due to lack of bone volume UR3.

PROGNOSIS

Overall good based on surgical procedure, thickness of connective tissue graft

TREATMENT OBJECTIVES

Improve aesthetics and function.

TREATMENT UNDERTAKEN

15.03.13: Assessment and radiograph, Discussion about how surgical is carried out and consent procedure.

17.05.13: Partial thickness pouch created in buccal surface of UR3 implant. Connective tissue graft harvested from 14, 15 region and placed in prepared bed. Biosin sutures placed and sling suture UR3 to cover the graft completely.

24.05.13: One week review. Patient felt soreness in the palate post-surgery. Surgical site healing well and palatal site healing well (Fig. 5).
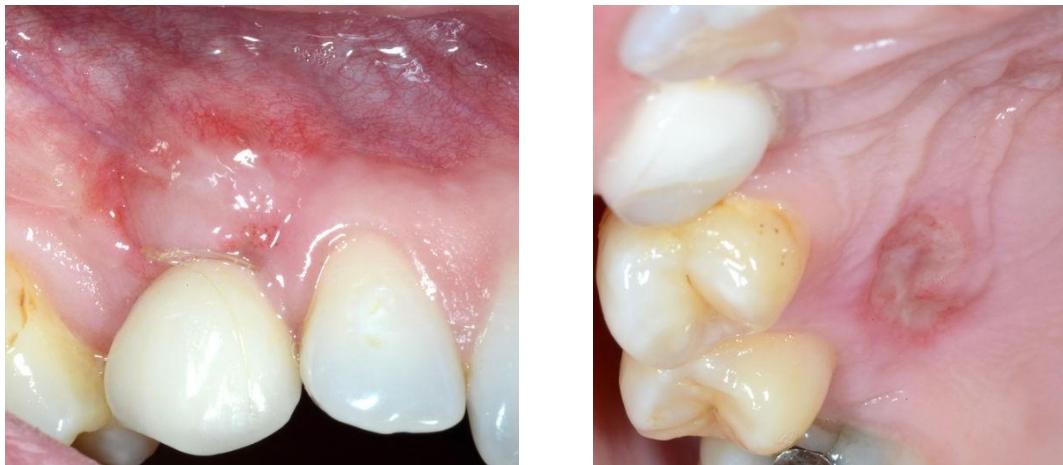

Fig. 5 One week post op buccal and palatal photographs. Note the suture still in place at UR3.

26.07.13: Two months review post connective tissue graft. Good healing observed. Patient happy with the outcome, No pain on brushing anymore.

OHE completed and discharged to restorative consultant maintenance and review.

POST TREATMENT PHOTOGRAPHS

Fig 6. Pre and post comparison photographs.Note increased thickness of attached gingiave post op.

Fig 6. Two months post healing photos of donor site (UR4,5 region).

REFLECTION

Good outcome of connective tissue graft procedure, leading to improvement in comfort while brushing. Periimplant mucogingival techniques have been shown to be stable over long term and are used for aesthetic and functional improvement at second stage surgical or post crown placement (Mathews,2000 ; Speroni et al. 2010)

Referance

– Mathews, D. P. (2000) Soft Tissue Management Around Implants in the Esthetic Zone. *The International Journal of Periodontics & Restorative Dentistry* 20:141-149.

– Speroni S, Cicciu M, Maridati P, Grossi GB, Maiorana C.(2010).Clinical investigation of mucosal thickness stability after soft tissue grafting around implants: a 3-year retrospective study. *Indian J Dent Res* 21(4):474-9.