First case

Introduction:

A 65 female patient, she has no sign and symptoms of systemic disease non smoking patient, she wears removable partial denture for the last 30 years.

During that period she lost more teeth and get more borne resorption, the partial denture become loose and it become very difficult for her to maintain it in the mouth or to eat with it. For that reason she visited the dentist to sake help and to found if there is any option to improve the problems that she has.

Intra oral examination:-

The upper and the lower ridges are thin and there is vertical and horizontal bone loss, mapping of the thickness of the soft tissue is done using size 25 reamer for estimation of the thickness of the buccal, labial and palatal mucosa of the missing teeth area of 23,24,25,12,14,15,16 which are the

recommended places for placement of implants in the upper jaws .

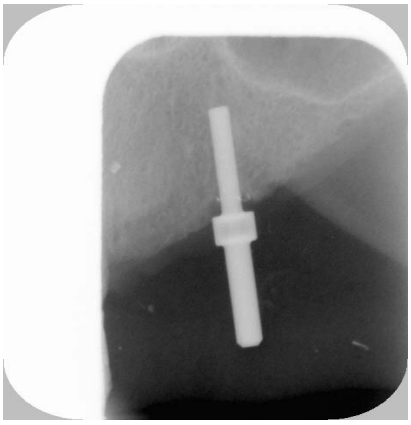
The oral mucosa labial and buccally was thinner than palatal which was 1-1.5 mm while palatally 2-2.5mm.

The patient have enough inter arch distance and the space more than 10mm. She has no any bone abnormality in addition on any pathology fallowing the intra oral examination.

Radiological examination:

O.P.G. was taken for general evaluation of the upper and lower jaw plus intra oral periapical film with marker to estimate the level of the floor of maxillary sinus in 26-27 missing area. Which was very low in the area of 26 and if we need to put implant in this area we need to do sinus lift, the bone type was type III?

The examination is completed with making an upper and lower impression to assess the interarch distance and the mesiodistal spacing in addition to manufacturing of the surgical template and the identification of the exact site and angulations of the implants and there numbers.



Preparation for surgery:-

The patient was instructed to use chlorhexidine 0.2 for 3 days before surgery and to do scaling and polishing for the teeth to improve the oral hygiene and the health of the oral mucosa.

Since the patient have long span missing teeth artificial replacement with waxing was done and the buccal cusp was cutted and the site and angulations of the implant is determined.

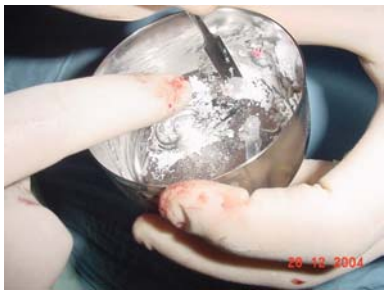
Surgical procedure:-

Fallowing strict sterilization and aseptic technique regarding the clinic, stuff, and the patient a local anesthetic injection is given to the patient 4% xylocaine local anesthetics and a II stage implant procedure was planed to performe .

Surgery was performed on the left side first crystal bone incision and a full mucoperiostcal flap was elevated osteotomy in the site of the implant was done by expanding and condensing the bone through spreading and not drilling because the bone quality was not so favorable after we reach the full depth of the osteotomy which was 12 mm 3.5*12 implant is placed and tricalcium phosphates (TCP) bone graft mixed with saline and placed on the bone and biomend of membrane covering the TCP and osteoinductal injection is placed under the flap then suturing is done .

On the right side a 3.5*12 implant is placed in the second premolar region after H shaped incision and drilling of osteotomy site to the exact depth and width TCP bone graft with biomend membrane cover and suturing is done after osteoinaductal injection the below the flap is given in the missing area (12) the bone was thin and TCP bone graft covered with membrane to augment the bone is decided be done before implant is placed and suturing is done with interrupted sutures it was scheduled for her to have another implant in the 12 region and 23 regions on the end of August 31/8. The osteotomy is drilled with rotation speed of 800 R.P.M. and good amount of irrigation with saline for cooling the bur and the drilling site and gradual enlargement of the osteotomy site drilling with intermittent pressure to reduce the heat generation. after the depth and width is reach the implant

was taken out of its package and not touching any surface or tissue or saline it was rotated in the osteotomy site with the hand then with the wreng slowly to reduce the heat generation also until it reach the exact depth then the abutment was unscrewed and a covering screw is screwed on the implant fixture to cover it.



TCP bone graft

Designing the biomend membring