

ORAL CAVITY RECONSTRUCTION

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Conference**

Sebel Citigate Hotel Brisbane

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ORAL CAVITY RECONSTRUCTION



CHOOSING RECONSTRUCTION RECONSTRUCTIVE LADDER +

1. Patient /surgeon factors
2. XRT prior/after
3. Regional considerations
4. Aesthetic considerations

ORAL CAVITY RECONSTRUCTION

PRINCIPLES =10 commandments OCR

1. Tailor op to patient; nutritional support
2. Aim = early healing without fistula
3. Avoid skin/oral flora wound infection
4. Avoid tongue tethering/scarring
5. Avoid airway compromise; trachea?
6. Replace lost lining, support and cover
7. Restore volume/anatomy/function
8. Restore bone loss (vascularised bone/spacer Vs prosthetic)
9. Consider dental restoration/cosmesis/donor site morbidity
10. PO-XRT within 6 wks; prior XRT re. healing, micro-vessels, bone

ORAL CAVITY RECONSTRUCTION

RECONSTRUCTIVE OPTIONS

- Direct closure = small defects, mobile tissues
- Secondary healing
 - Grafts:- SSG, FTG, mucosal
 - Local flaps
 - Regional flaps
 - Free flaps

ORAL CAVITY RECONSTRUCTION

SECONDARY HEALING

- Suitable for hard palate mucosal loss, small floor of mouth defects near alveolus, dorsal/dorsolateral shallow tongue defects
- Healing is by mucosalisation/contracture/recruitment; big defects → excessive contracture affecting function

ORAL CAVITY RECONSTRUCTION

GRAFTS Options = mucosal, SSG, FTG

Intraoral grafts take well with appropriate application.
Require vascular bed, always some contracture, skin
= rigid on underlying tissues.

Can do muscle draping e.g. myelohyoid/genioglossus
over exposed mandible.

Some bridging occurs esp. in FTG

* Any skin used for reconstruction can develop
chronic inflammation/ hyperkeratosis → develop
cancer after 5-10 years.

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Mucosal graft



Buccal Mucosa is self cleaning but donor area limited

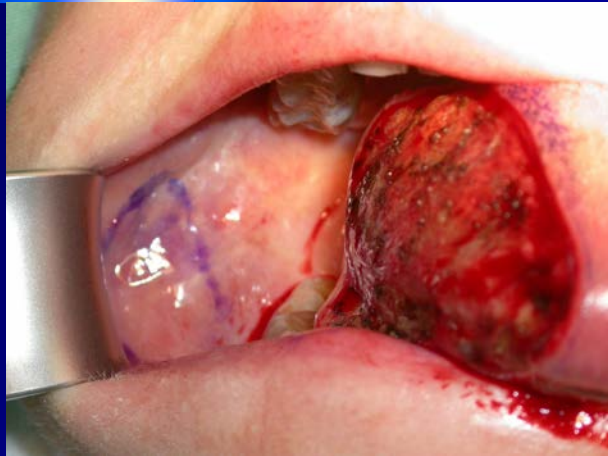


ORAL CAVITY RECONSTRUCTION

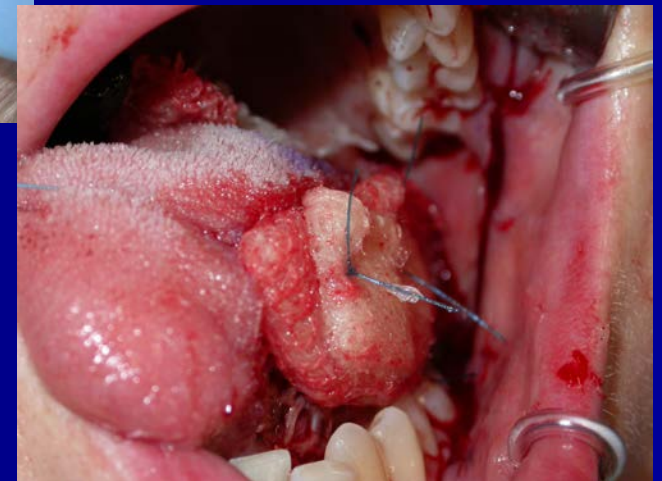
OPERATIVE TECHNIQUE INTRAORAL GRAFTS

1. Similar for mucosal grafts, SSG and FTG
2. Haemostasis and AB prophylaxis essential
3. Interrupted 4/0 Dexon on edges, (overlap for SSG), QUILTING SUTURES, tie-over dressing of jelonet better than xeroform, supplementary transfixion sutures through tongue/FOM into neck/ thru cheek with external bolus protection
4. AIM= protect from saliva, appose graft to underlying tissues, immobilise graft on underlying tissues, prevent haematoma

ORAL CAVITY RECONSTRUCTION



Technique
for intraoral
grafting



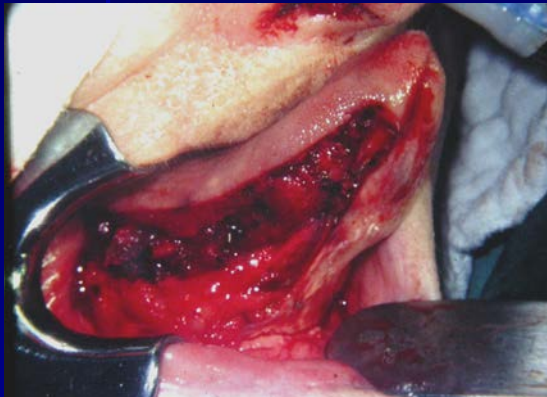
ORAL CAVITY RECONSTRUCTION

POST-OP CARE INTRAORAL GRAFTS

1. Naso-gastric feeding one week
2. 1% peroxide mouth washes 2nd hrly initially → less frequent later is ok
3. Water rinses for dentition + sips for comfort/cleansing
4. Dressing off 1 week, then cotton gauze on finger cleaning by patient after all diet
5. Patient does oral cares

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SPLIT SKIN GRAFTS



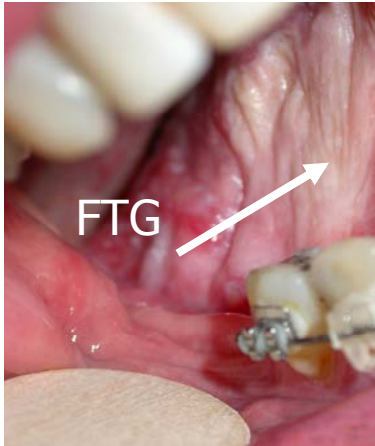
Thick layer medial arm skin → most likely to metaplaste to pink shiny surface, looking more normal.

(Overgraft donor area from back of arm, or use FTG from this site instead to avoid donor site healing delay)

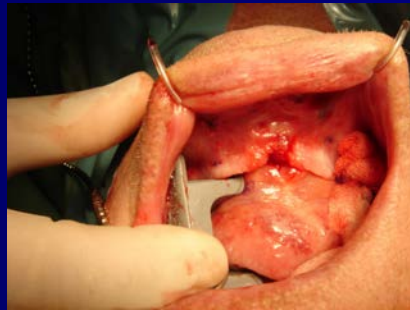
* Skin attracts food debris – not self cleaning



ORAL CAVITY RECONSTRUCTION



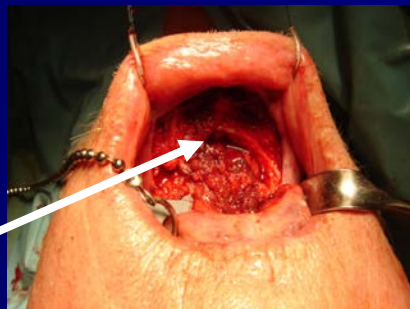
TUMOUR



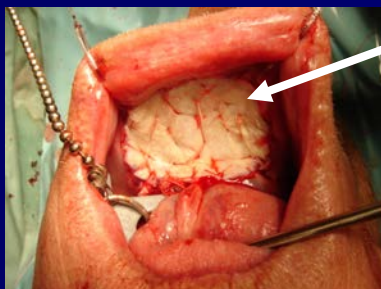
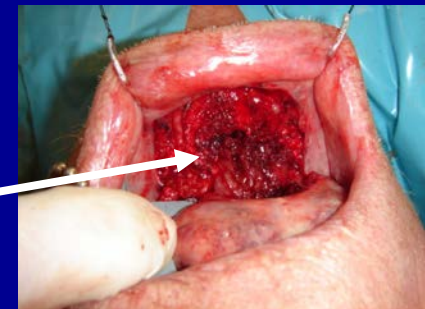
EXCISION
TUMOUR +
INNER
TABLE/GENIAL
TUBERCLES



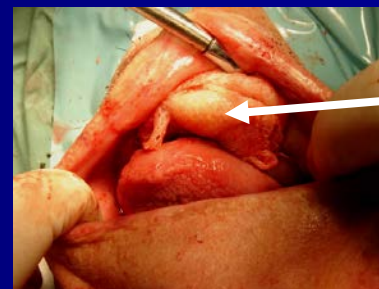
BARE ANT
ALVEOLUS



GENIOGLOSSUS
DRAPING



FTG SUTURED
Edge to edge
& QUILTED



INTRAORAL JELONET
TOD +
TRANSFIXION AND
EXTERNAL BOLUS

ORAL CAVITY RECONSTRUCTION

LOCAL FLAPS

- Lip
- Tongue
- Buccal fat pad (leaves cheek hollow)
- Naso-labial (cheek)
- Buccinator (anterior/posterior)

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REGIONAL FLAPS

- Forehead (historic/salvage)
- Temporalis muscle (possible, others better)
- Neck:- dermal pedicle; platysma mcf; submental mc/pf; rarely used now, sternomastoid mcf; trapezius omcf
- Deltopectoral, pectoralis major (historic/salvage)

FREE FLAPS



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LIP RECONSTRUCTION

- Multitude of local flaps in literature Abbe, Karapandzig, cheek flaps e.g. McGregor, Bernard
- Abbe flap still provides BEST recon (skin/band of circular muscle/mucosa). Stretches with time, neurotises, dynamic repair; can replace entire lip (2 flaps)
- Karapandzig next best but bluntens commissures; reserve for unfit, LA+IV sed ...no mucosal incisions
- Free flaps for big complex defects; but not dynamic and skin colour match poor (use local tissue for cover). (Historically folded forehead flap, poor aesthetics donor site; reserve for unfit pt.)

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■ LIP RECONSTRUCTION

ABBE FLAP
10 YRS



PECT MAJOR
& FF = poor
cosmesis



PLATYSMA MCF
15 YEARS



LIP + BM DEFECT
LINING = RAFF
COVER =
PLATYSMA MCF



ORAL CAVITY RECONSTRUCTION

■ ABBE x 2



- TUMOUR MARGIN 1 CM
- PEDICLES SITED MEDIALY
- AB + MOUTHWASH
- INITIALLY NGF + H₂O SIPS → day 2, CLEAR → day 4, FREE FLUIDS → SOFT DIET
- DIVIDE PEDICLES 2 WEEKS

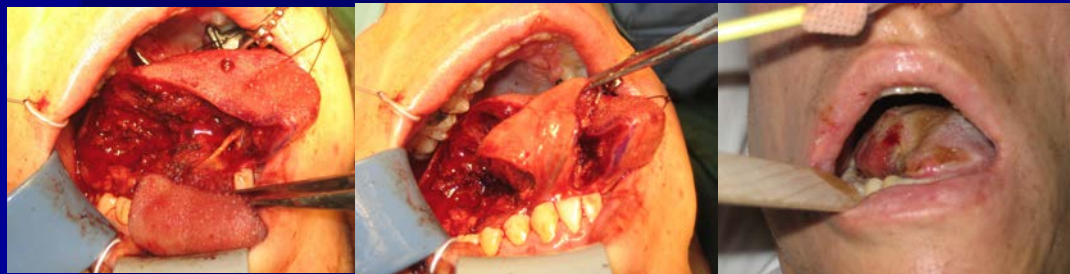


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LOCAL FLAPS TONGUE



AIM TO RESTORE TONGUE SHAPE



FUNCTIONING EXTRINSIC MUSCLES = CONFORMERS

ORAL CAVITY RECONSTRUCTION

BUCCINATOR MYOMUCOSAL FLAPS ADVANTAGES

- Supple → stretch
- Mucosal surface (unique)
- Viable even post XRT
- Suit small to medium defects
- Muscle layer means suitable FT defects palate (nasal surface mucosalises)

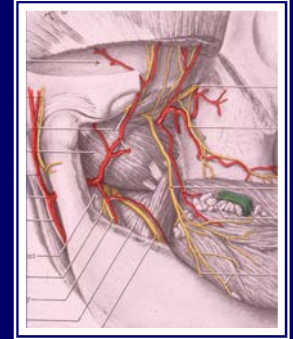
ORAL CAVITY RECONSTRUCTION

LOCAL FLAPS

1. BUCCINATOR MYOMUCOSAL
Posteriorly based= buccal artery+
venous plexus for posterior defects
(Suitable for tonsil, soft palate,
posterior hard palate, posterior
mandibular/ maxillary alveolus, post
FOM)



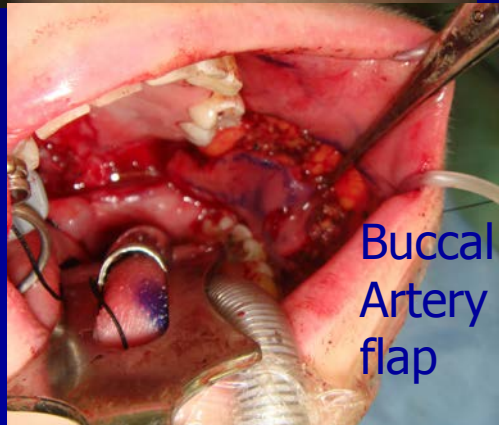
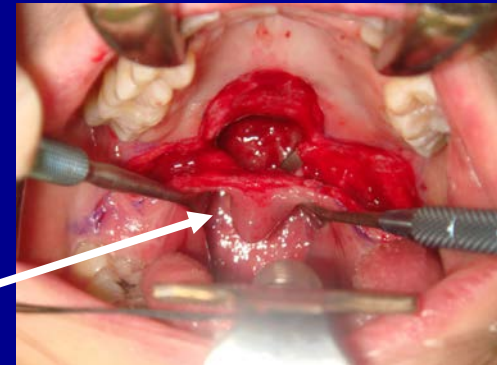
ORAL CAVITY RECONSTRUCTION



Buccal artery buccinator myomucosal flap

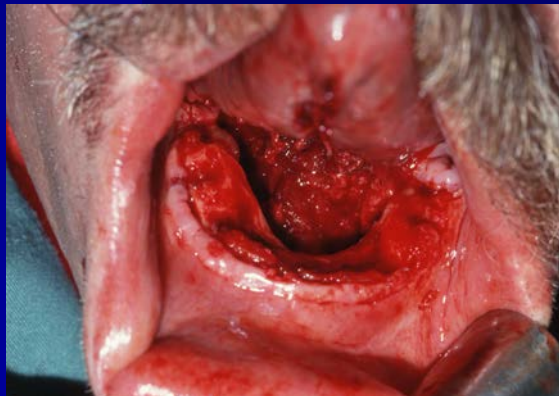
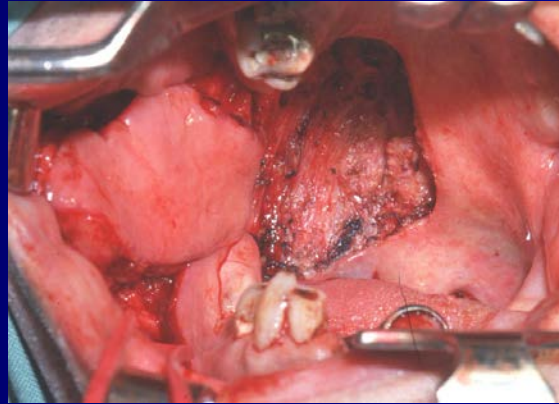
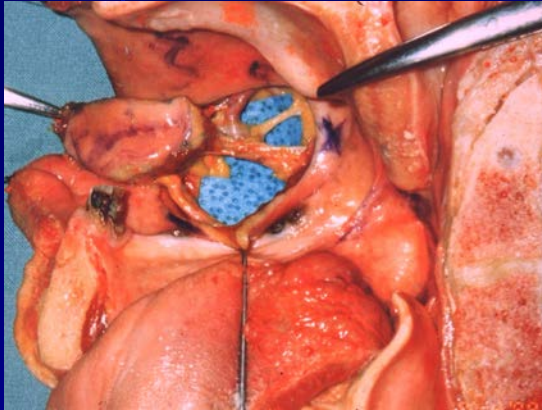


FT defect central hard palate plus most of soft palate (post excision granuloma – FS control + scar contracture release)



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OTHER BUCCINATOR FLAPS ON BUCCAL ARTERY



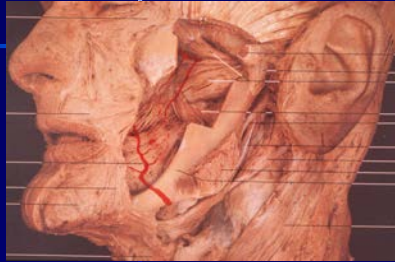
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FACIAL ARTERY BUCCINATOR MYOMUCOSAL FLAPS

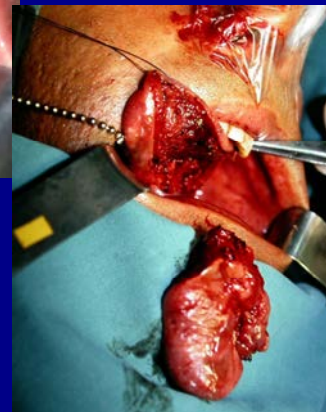
Intraoral transposition for upper, lower lip, maxilla, mandible (NB pedicle crossing inter-occlusal plane)

FAMM (island, long inferior pedicle passed under mandible)

ORAL CAVITY RECONSTRUCTION



FAMM = FA & FV
long pedicle passed
under mandible



Buccinator
myomucosal flap on
facial artery and vein

ORAL CAVITY RECONSTRUCTION

NASOLABIAL for lining

Avoid hair transfer (better in females)

Inferior base for lower lip, lower alveolus, floor of mouth, ventral tongue

Superior base for upper lip, maxillary alveolus

Either pedicle for buccal mucosa

ORAL CAVITY RECONSTRUCTION

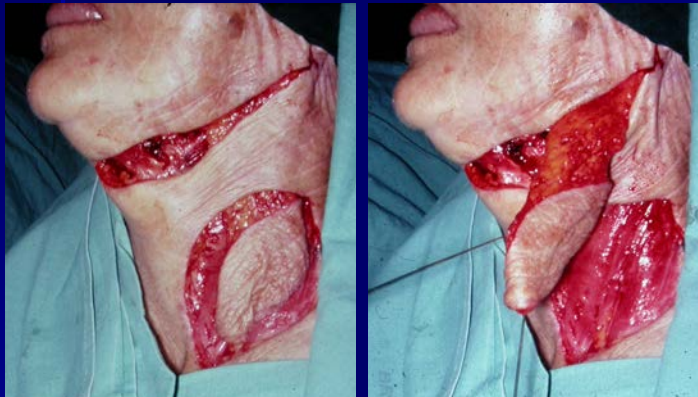
NASOLABIAL for lining

- 2 stage best re.viability, extra length from bridge segment, pedicle avoids interocclusal plane
- Good donor scar but facial so best for old and frail patients
- Limited size



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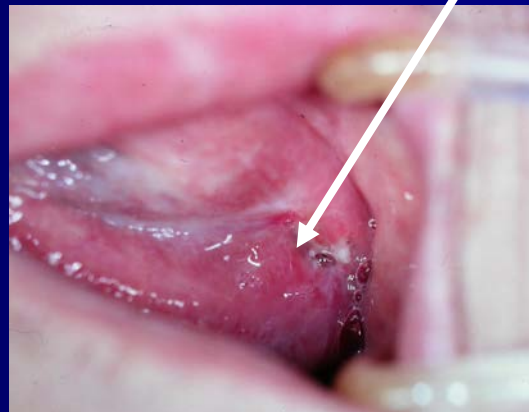
PLATYSMA MYOCUTANEOUS



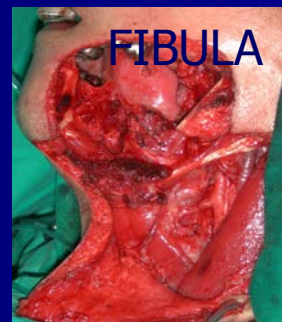
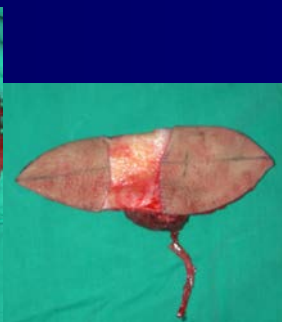
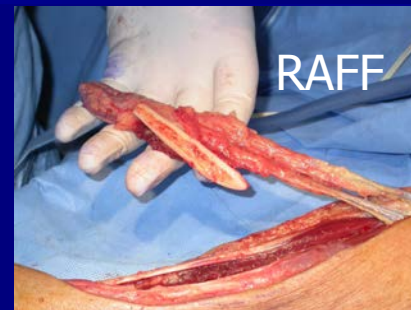
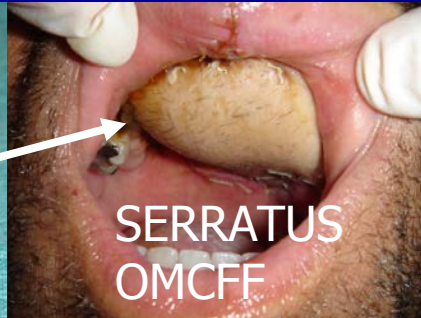
FOR LINING
ALVEOLUS
FLOOR OF MOUTH
BUCCAL



FOR COVER

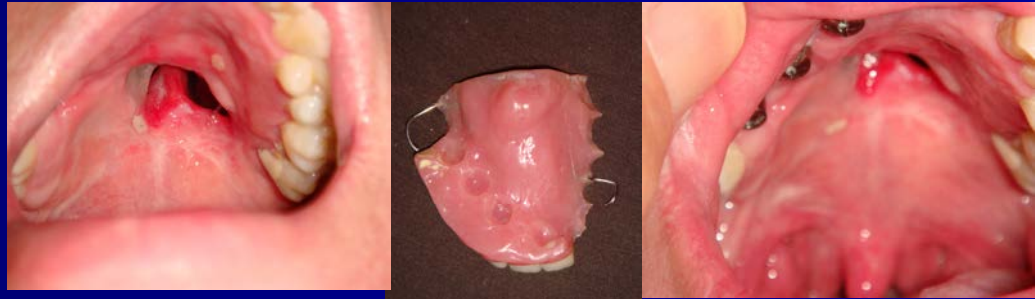


FREE FLAPS ORAL CAVITY RECONSTRUCTION



ORAL CAVITY RECONSTRUCTION

PROSTHESIS



OSSEOINTEGRATION



ORAL CAVITY RECONSTRUCTION

THE END

