La chirurgia demolitiva

A.CAMAIONI
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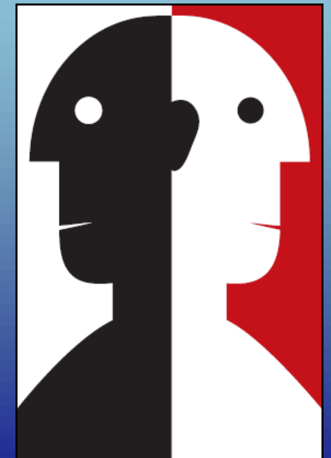
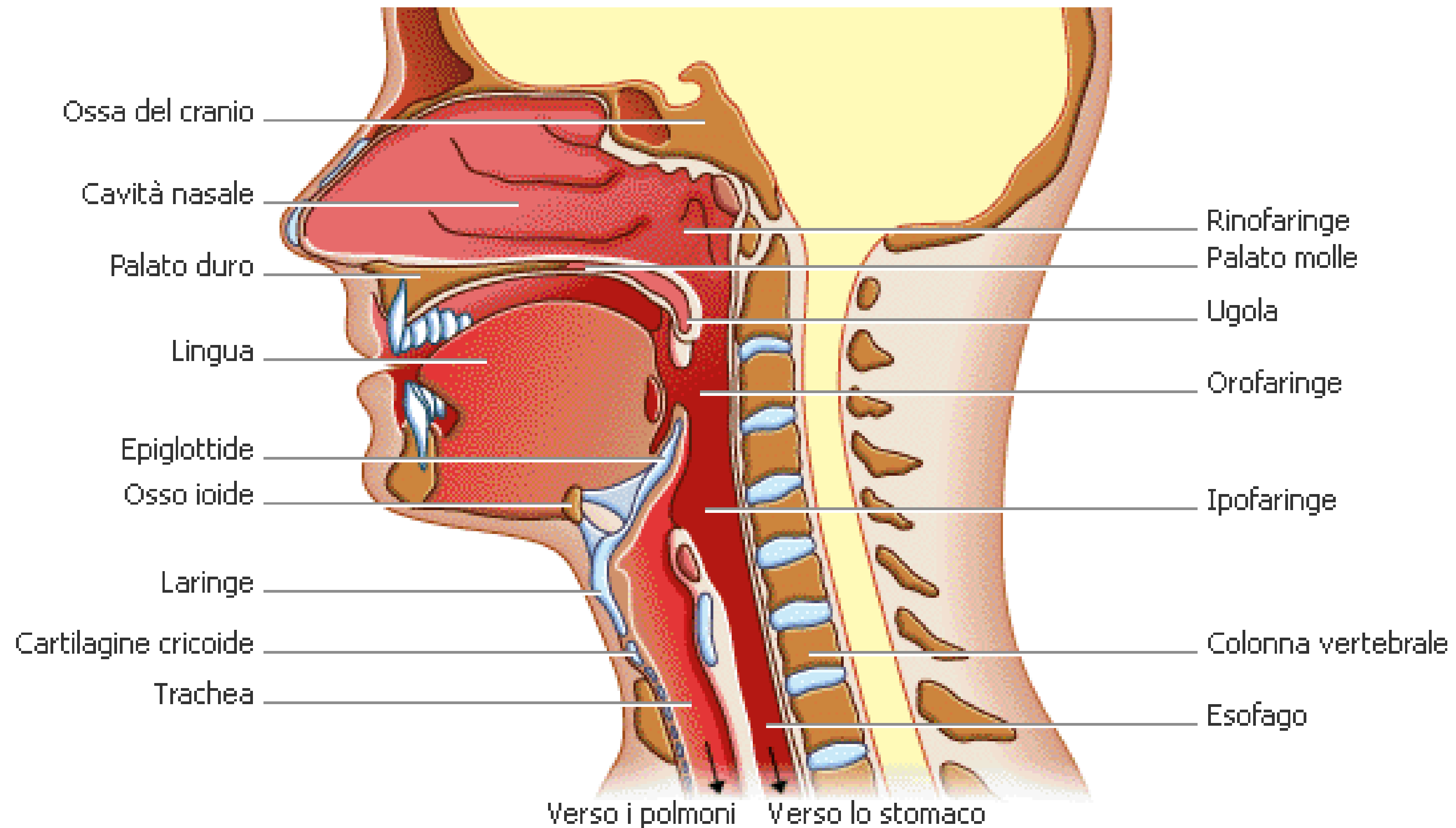
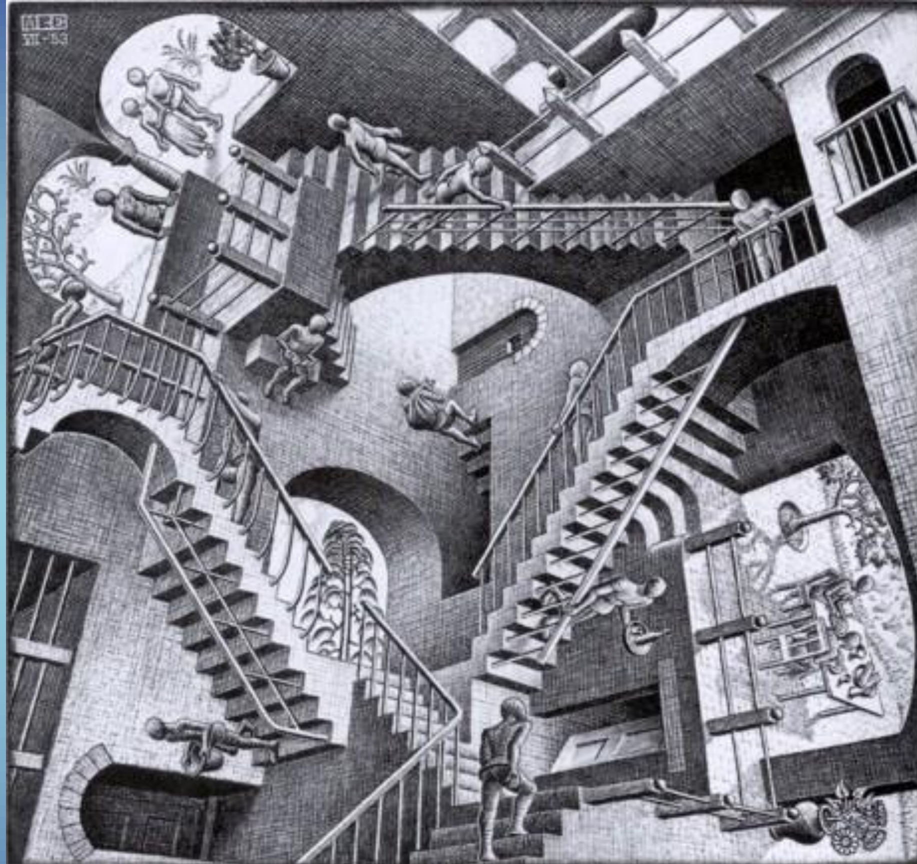


Chirurgia demolitiva…



... Argomento vasto e “pericoloso”...



...ci si può perdere !!

Chirurgia demolitiva nelle neoplasie delle vie aereo-digestive superiori

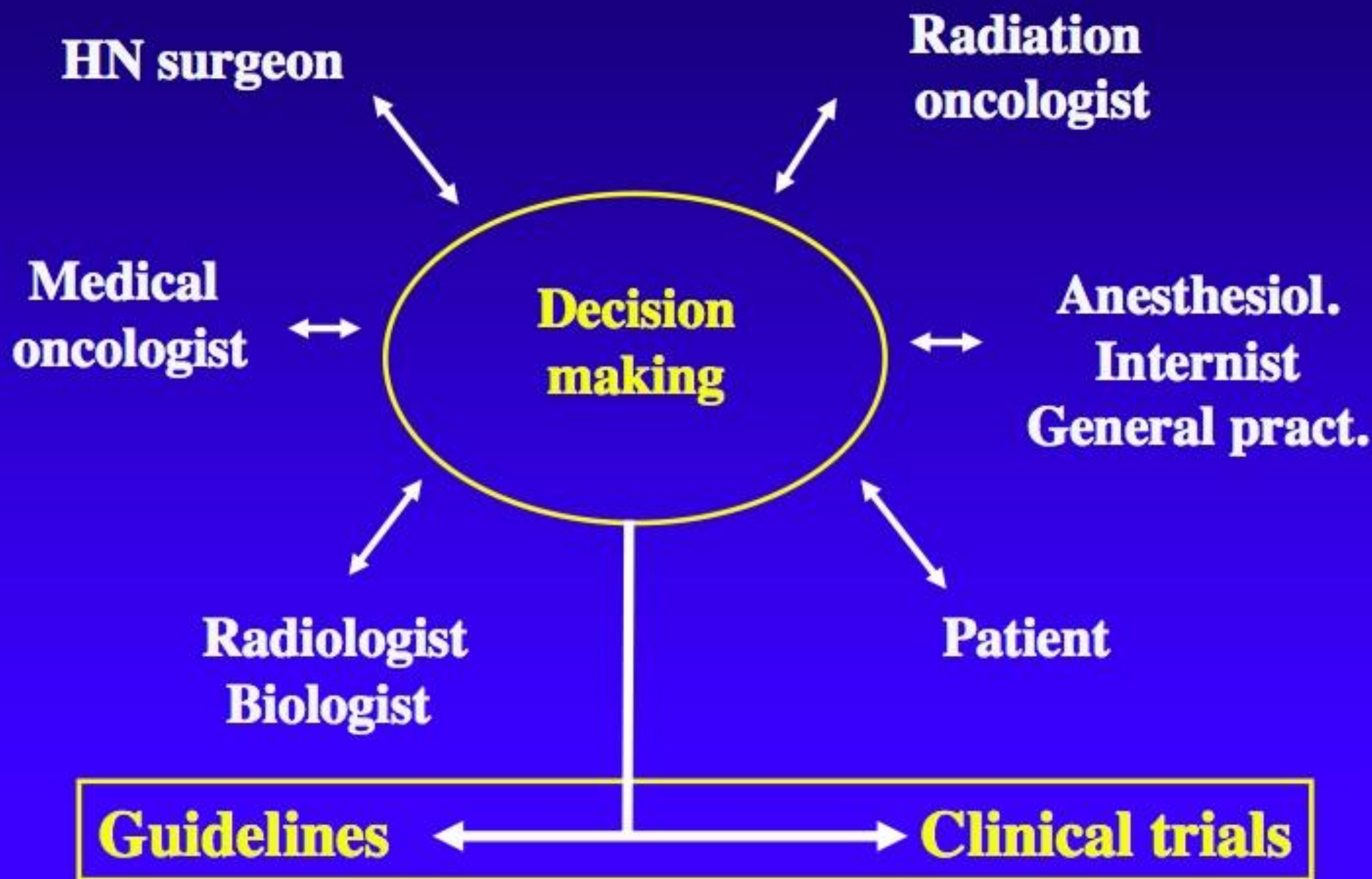
…in 20-30 minuti…

…di che parlo??

International Federation
of Head and Neck Oncologic Societies

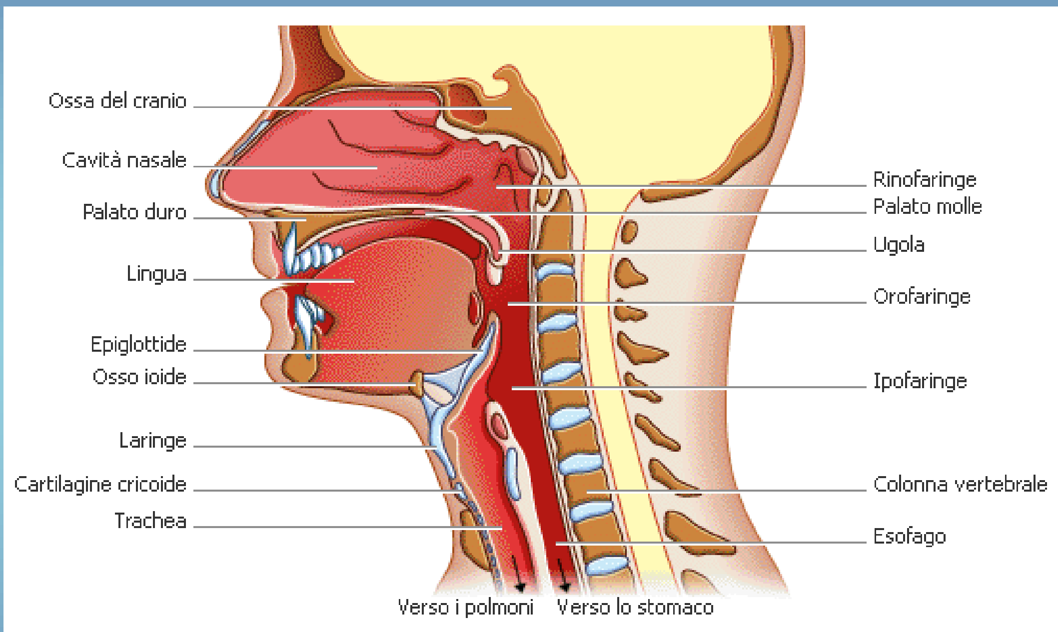
Competence
Convenience
Cost
Compliance
Complications

The golden standard: multidisciplinarity



2008

Vie aereo-digestive superiori



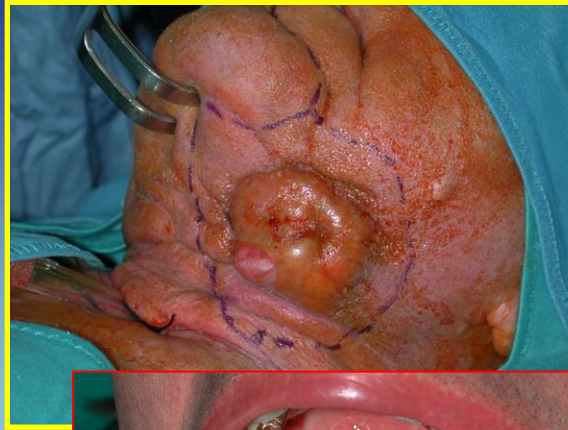
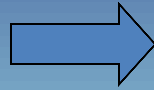
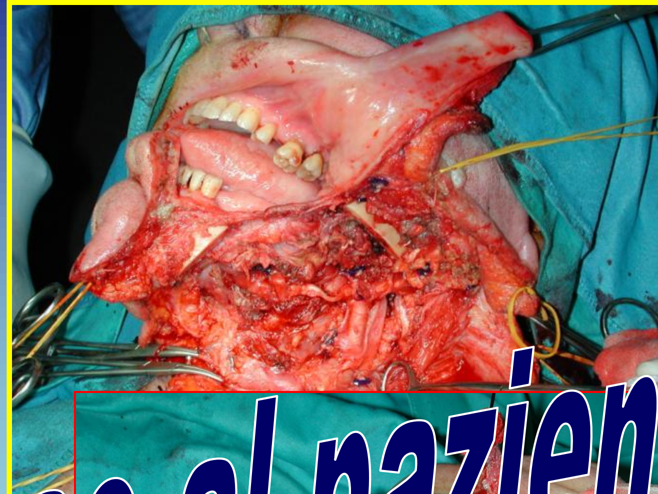
RESPIRAZIONE

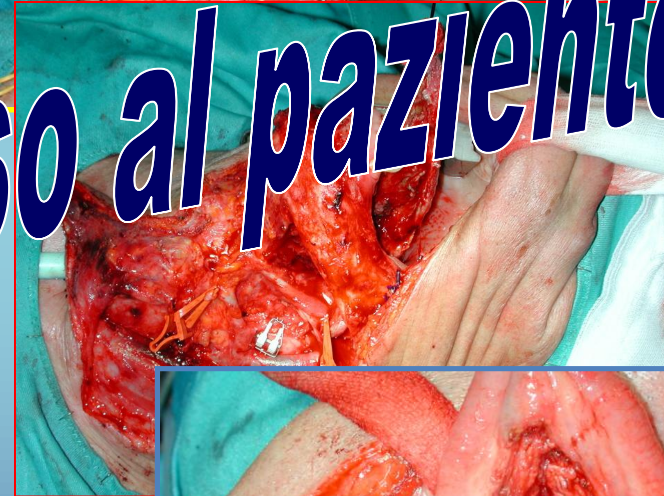
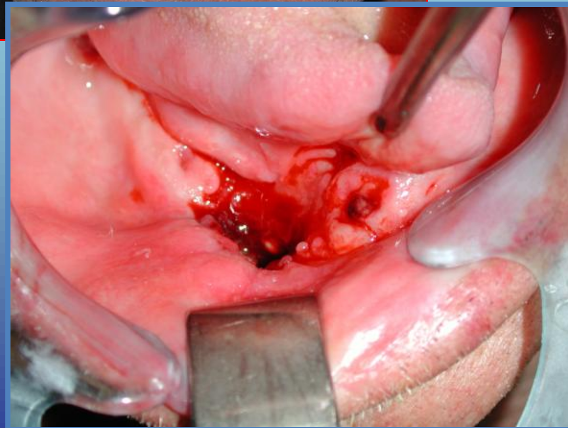
FONAZIONE

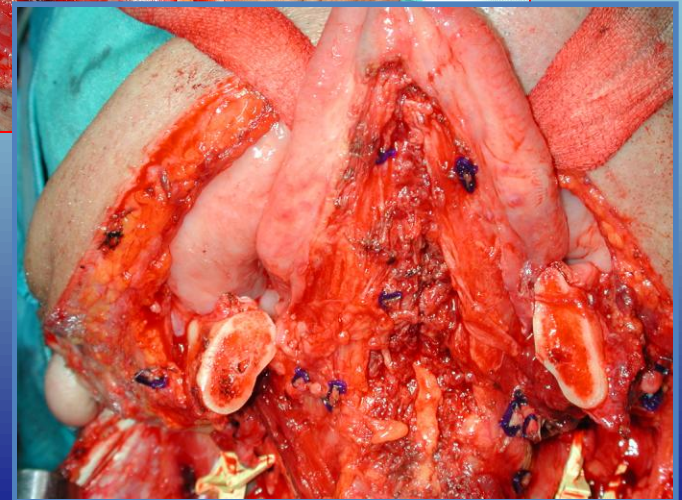
LINGUAGGIO

DEGLUTIZIONE

Dopo chirurgia demolitiva cervico-cefalica….



Che deficit causo al paziente?

Deficit Laterale

- Disfagia moderata
- Tonsilla palatina, parete faringea

Deficit Mediano

- Disfagia importante
- Lingua, laringe

Opzioni chirurgiche

Resezione endorale

Resezione via pull-through

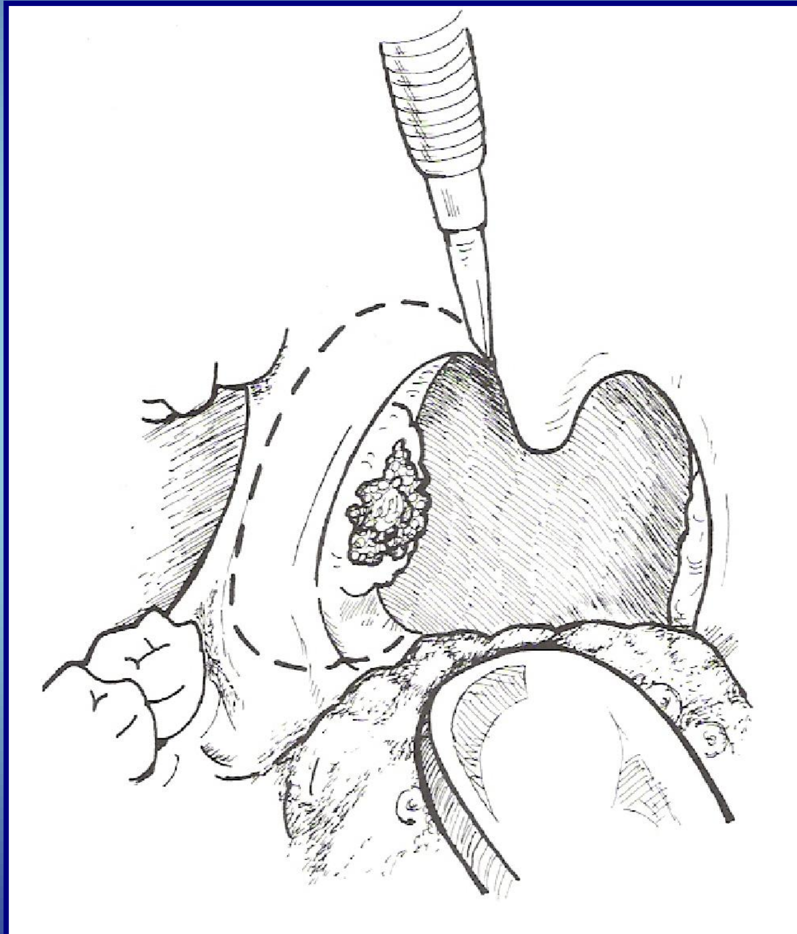
Resezione composita per via transmandibolare conservativa con mandibulotomia mediana/laterale

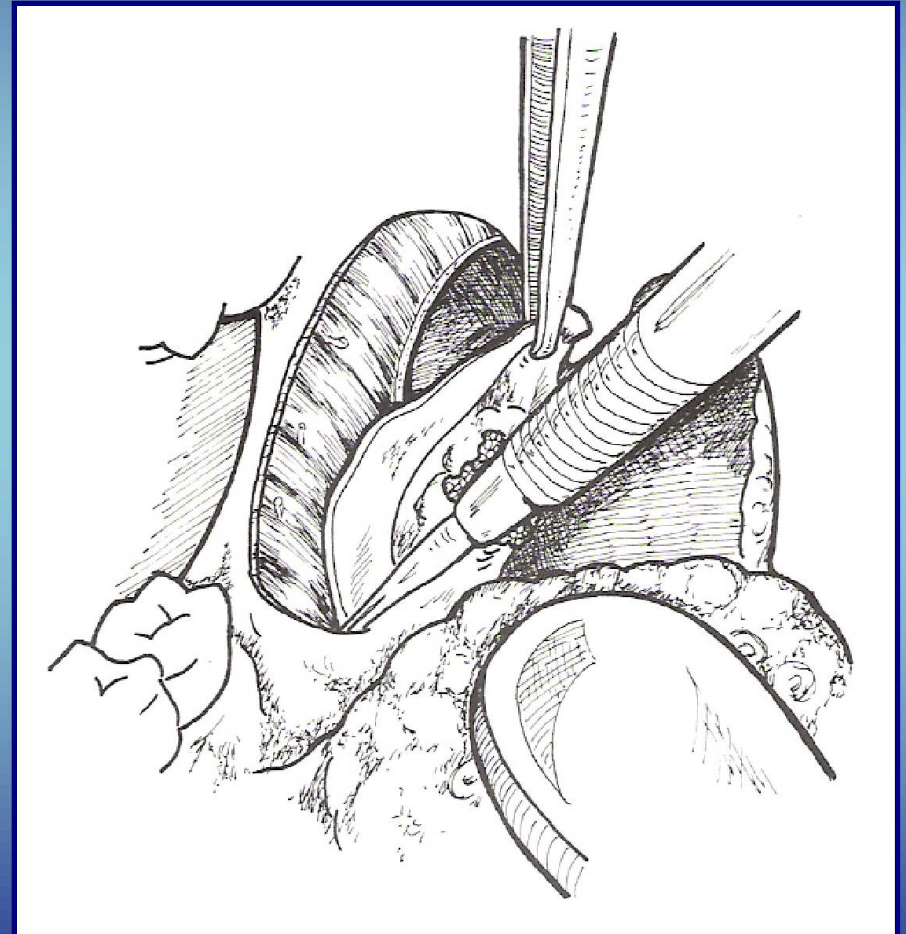
Resezione composita per via transmandibolare conservativa con mandibulectomia marginale

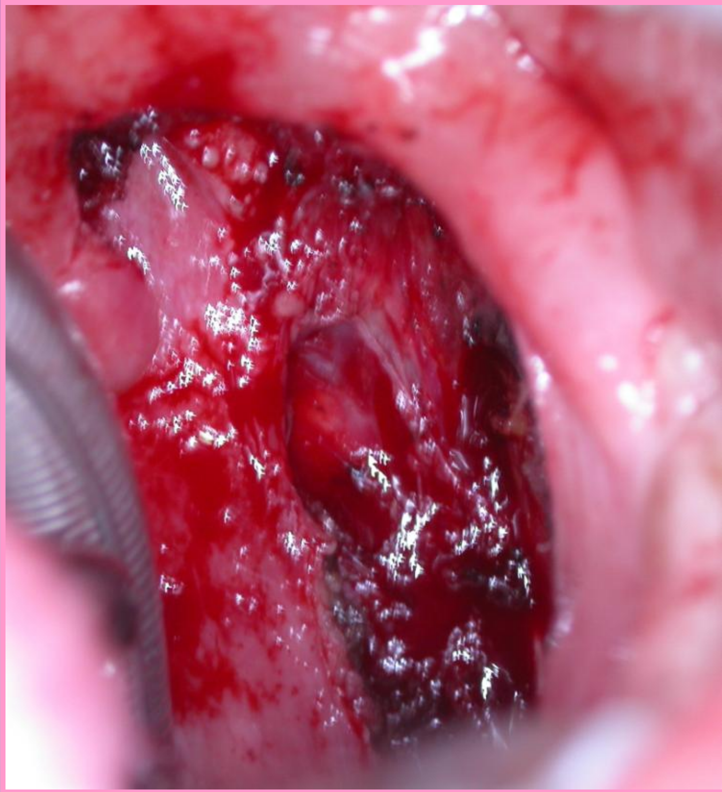
Resezione composita per via transmandibolare demolitiva

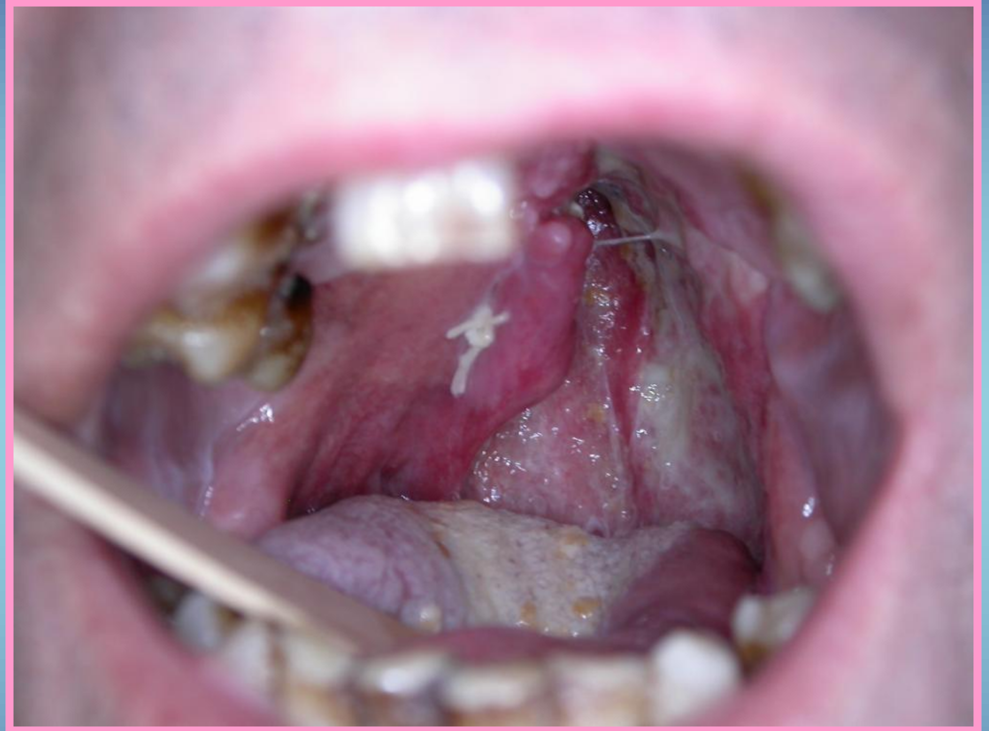
Resezione endorale

Tumore tonsillare





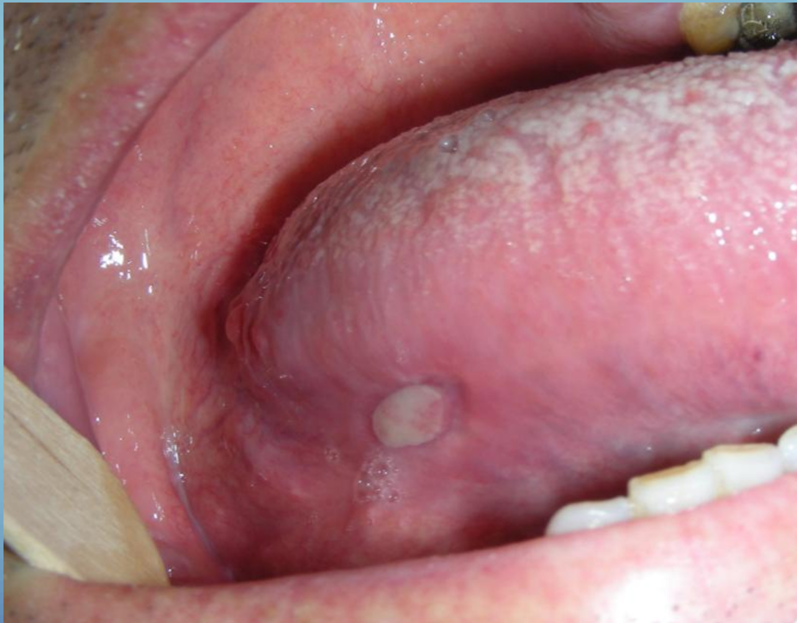


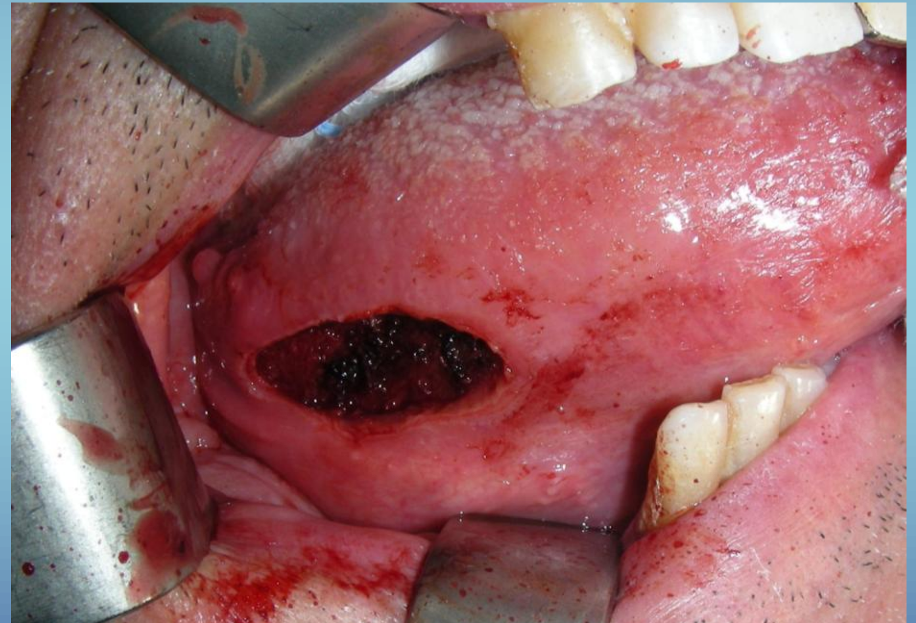


Tonsillectomia allargata

Resezione endorale

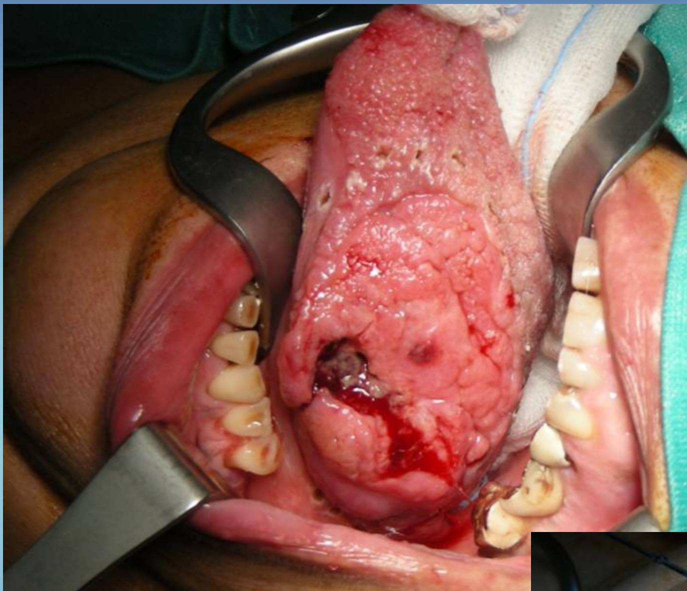
Tumore bordo linguale

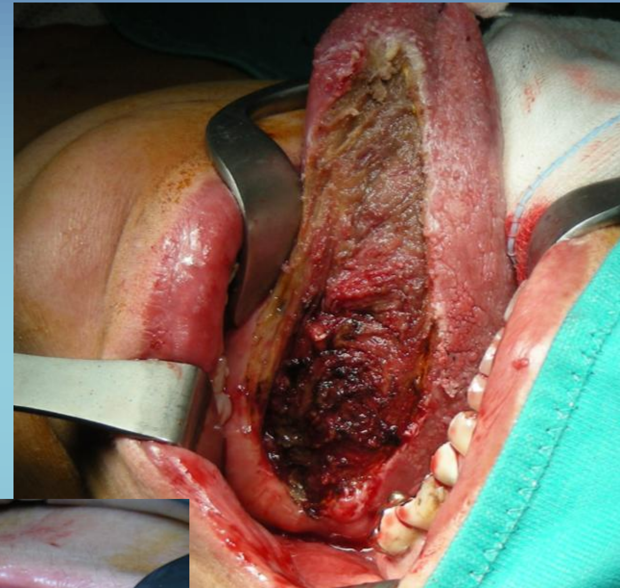


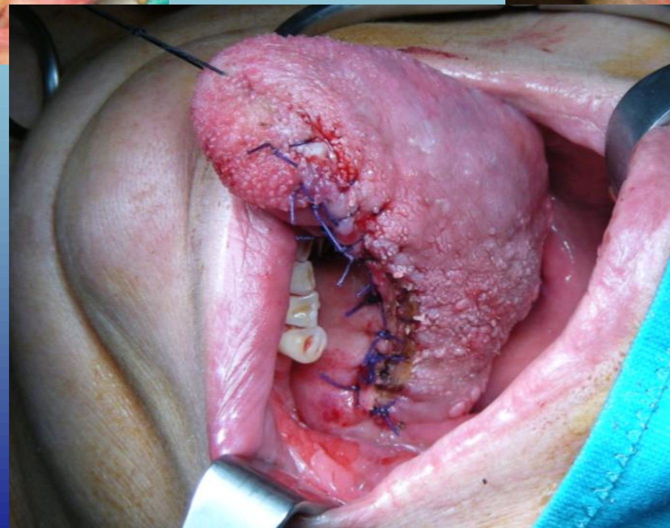


Resezione endorale

Tumore corpo linguale

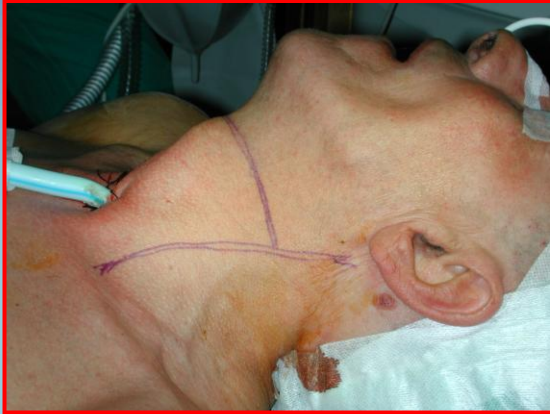
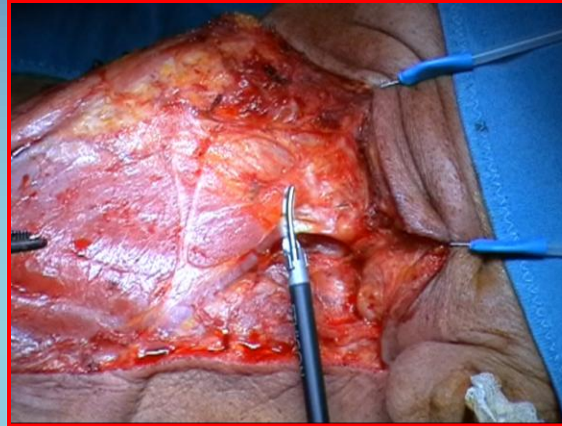
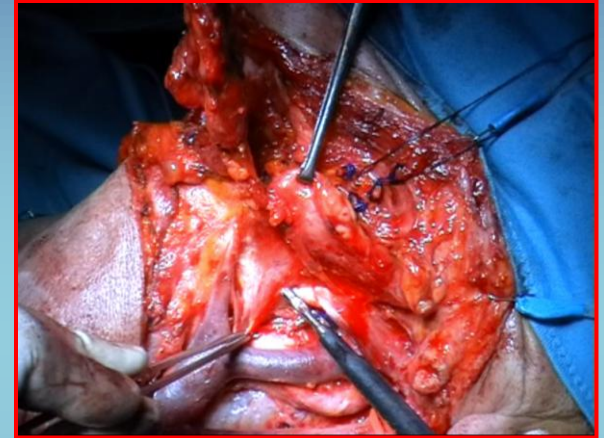
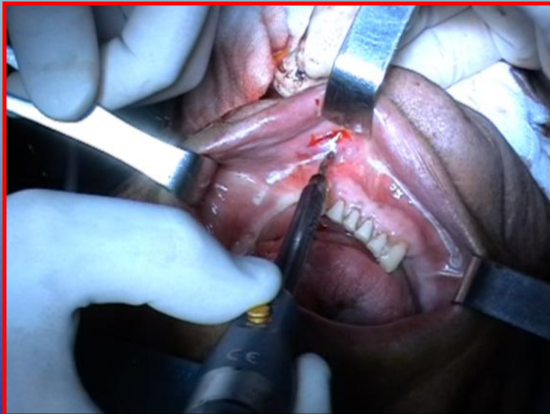
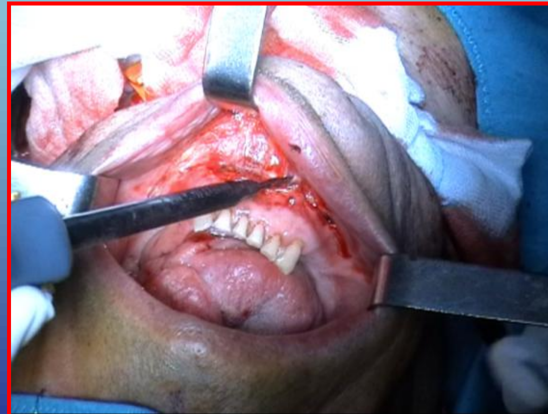
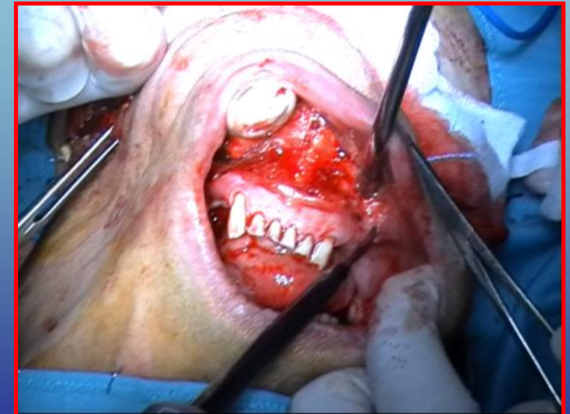






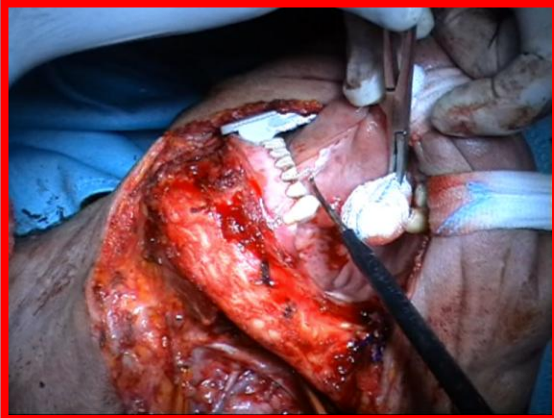
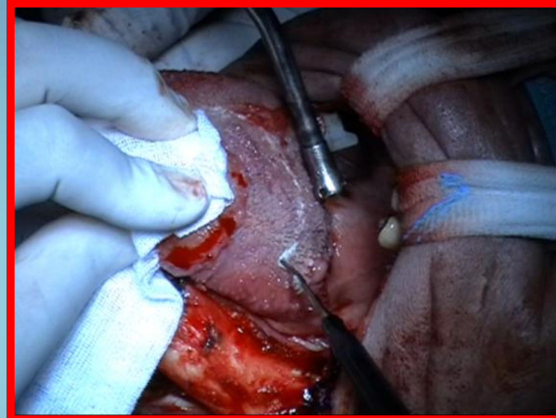
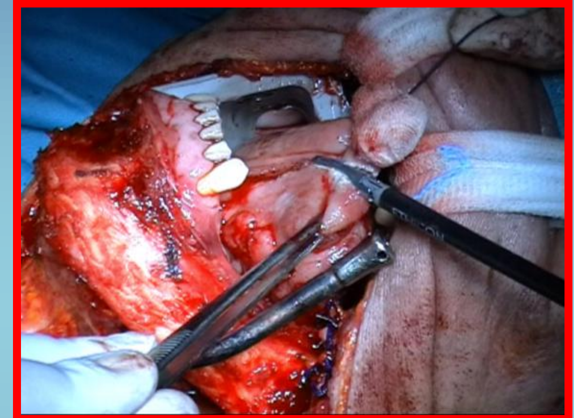
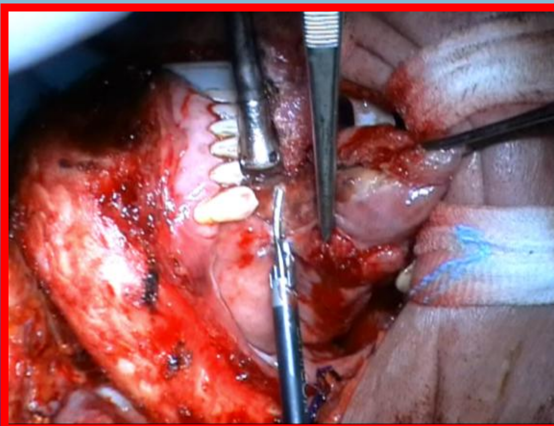
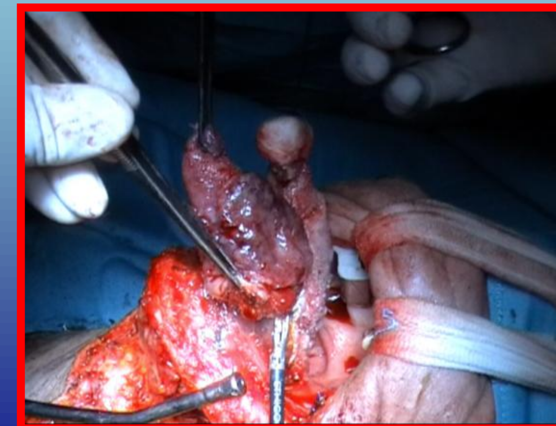
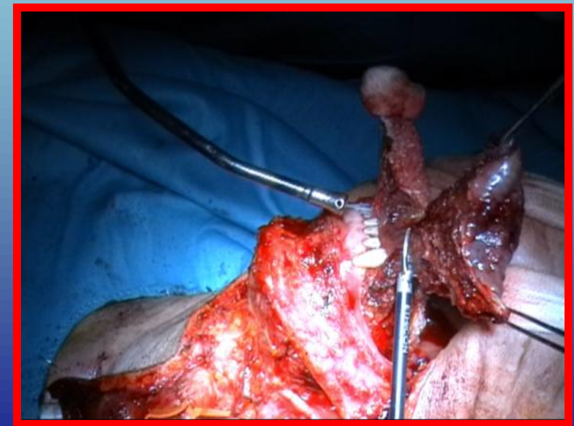
Resezione via pull-trough

Tumore lingua mobile

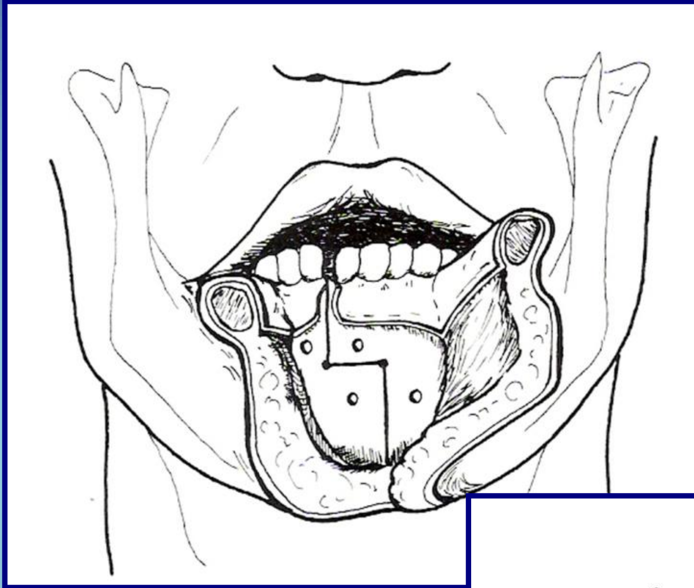
Resezione via pull-trough

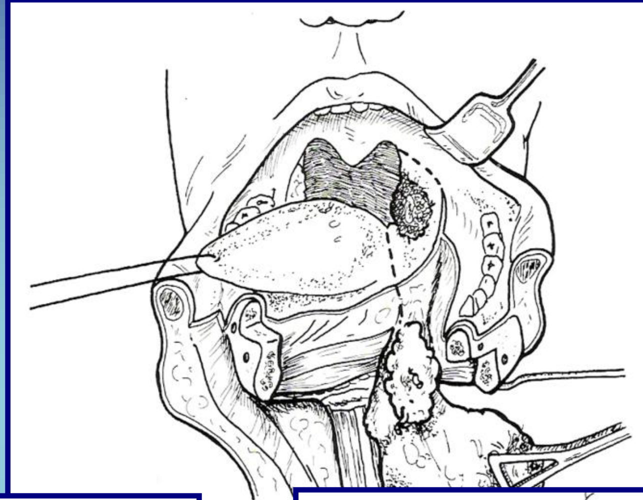
Tumore lingua mobile

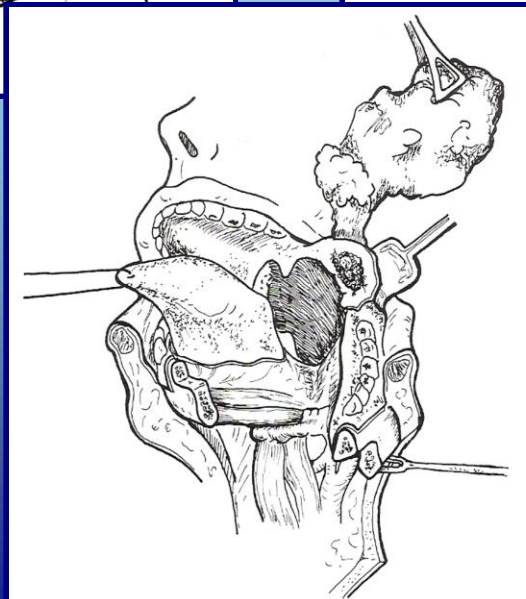







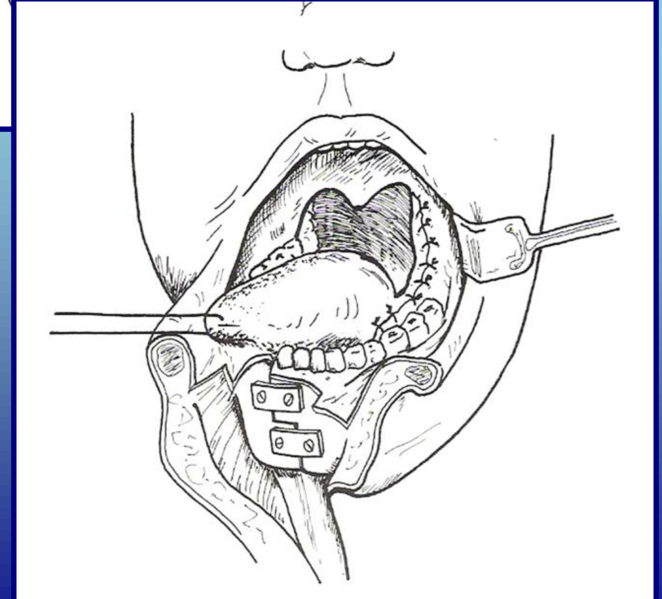
Resezione composita per via transmandibolare conservativa

Mandibulotomia mediana



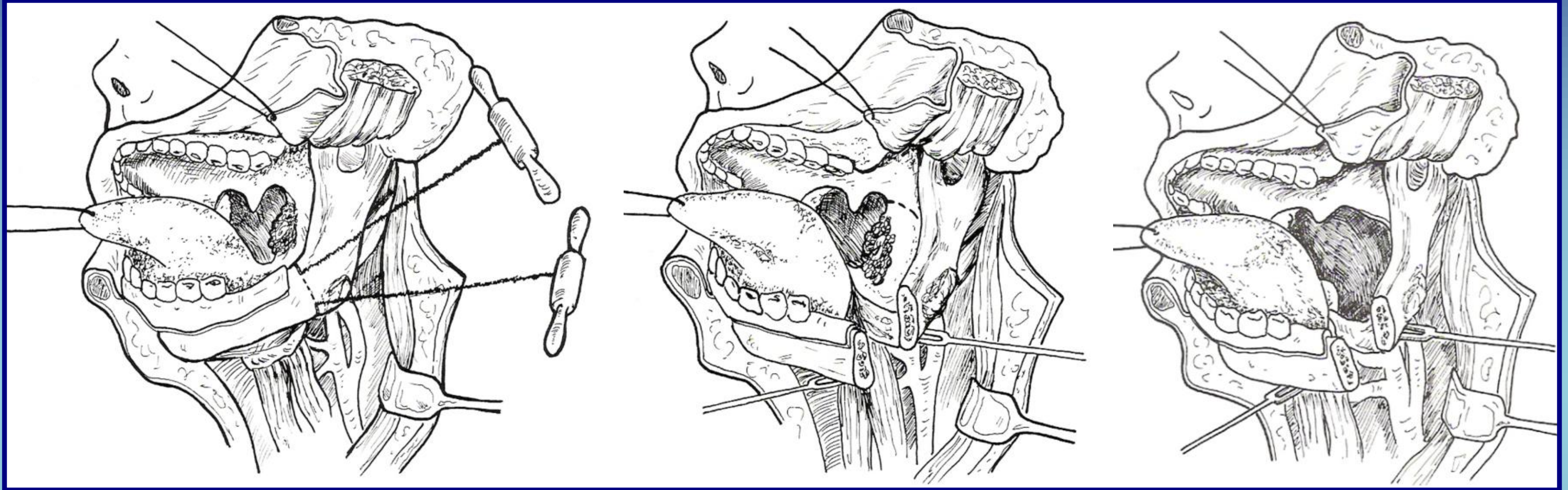


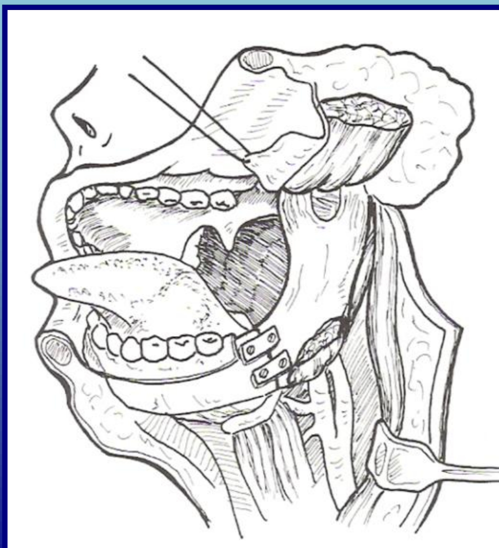


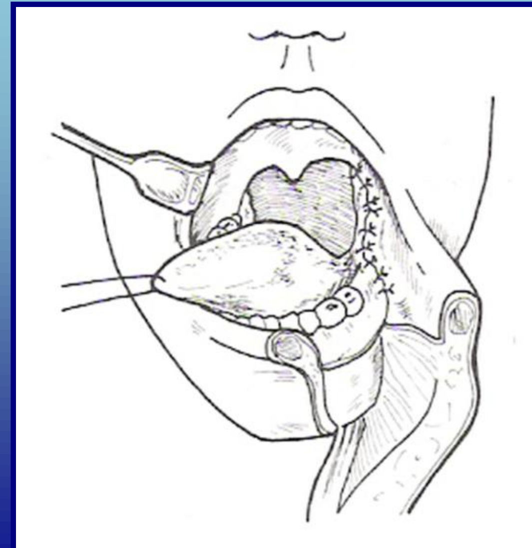


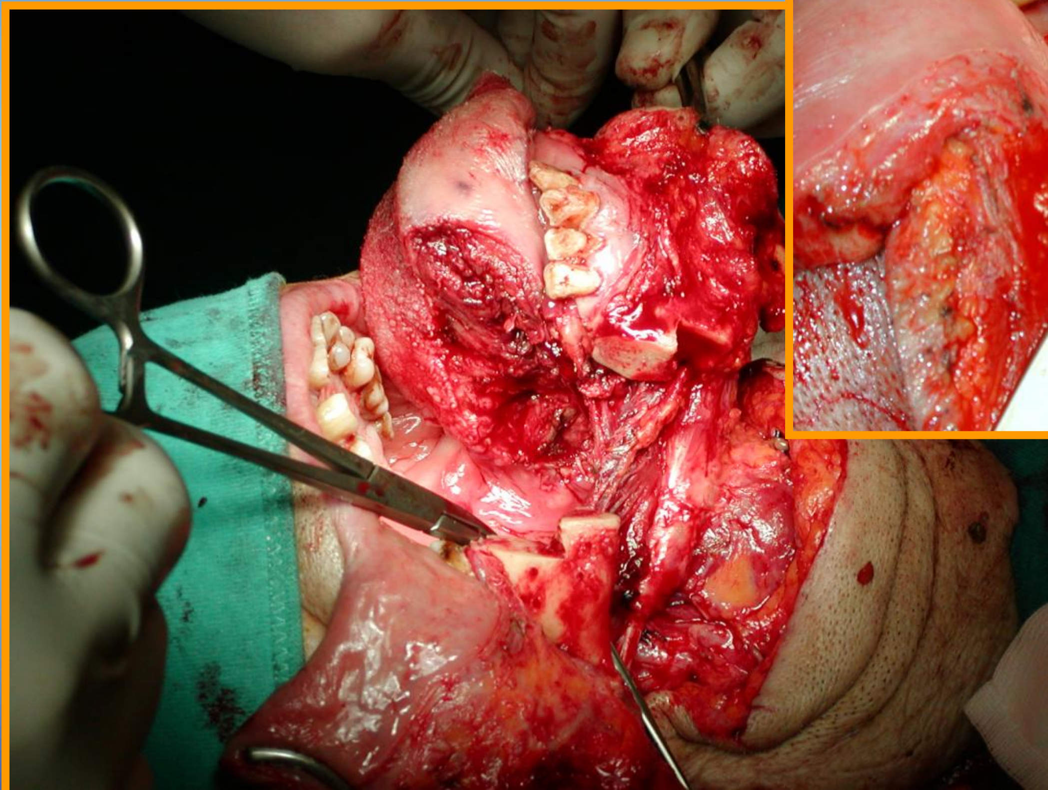
Resezione composita per via transmandibolare conservativa

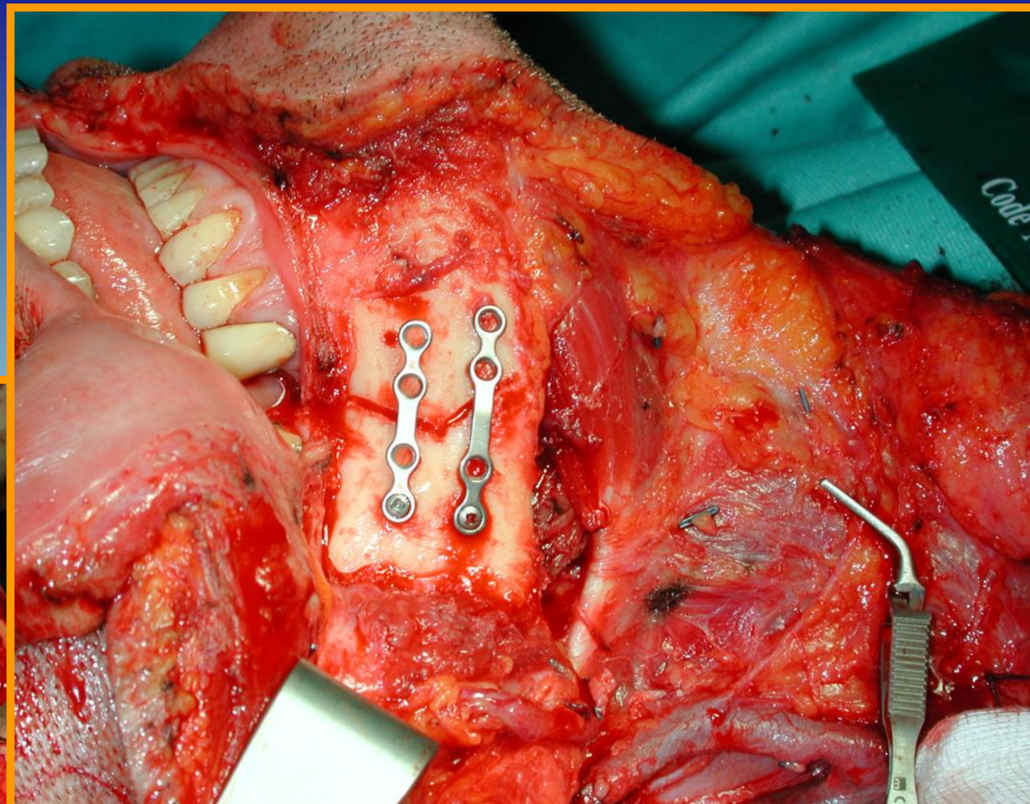
Mandibulotomia laterale







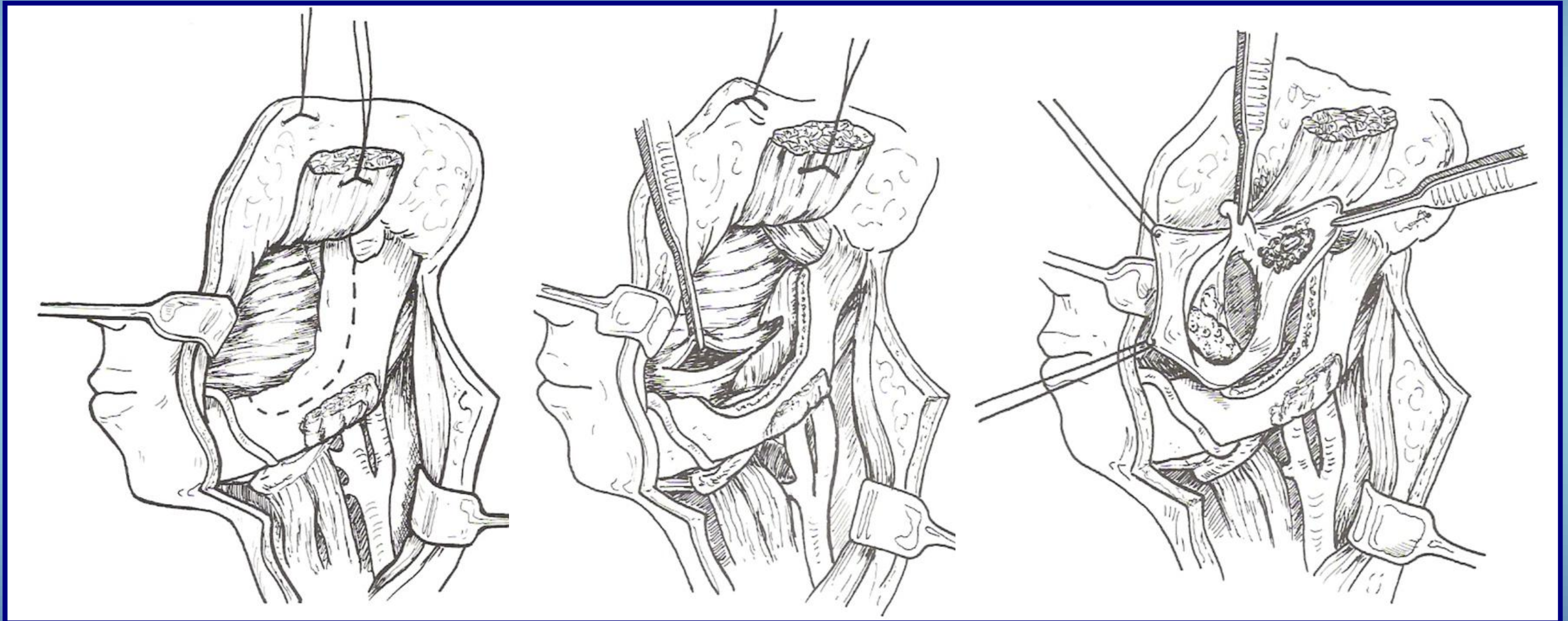




Resezione composita con mandibulotomia laterale

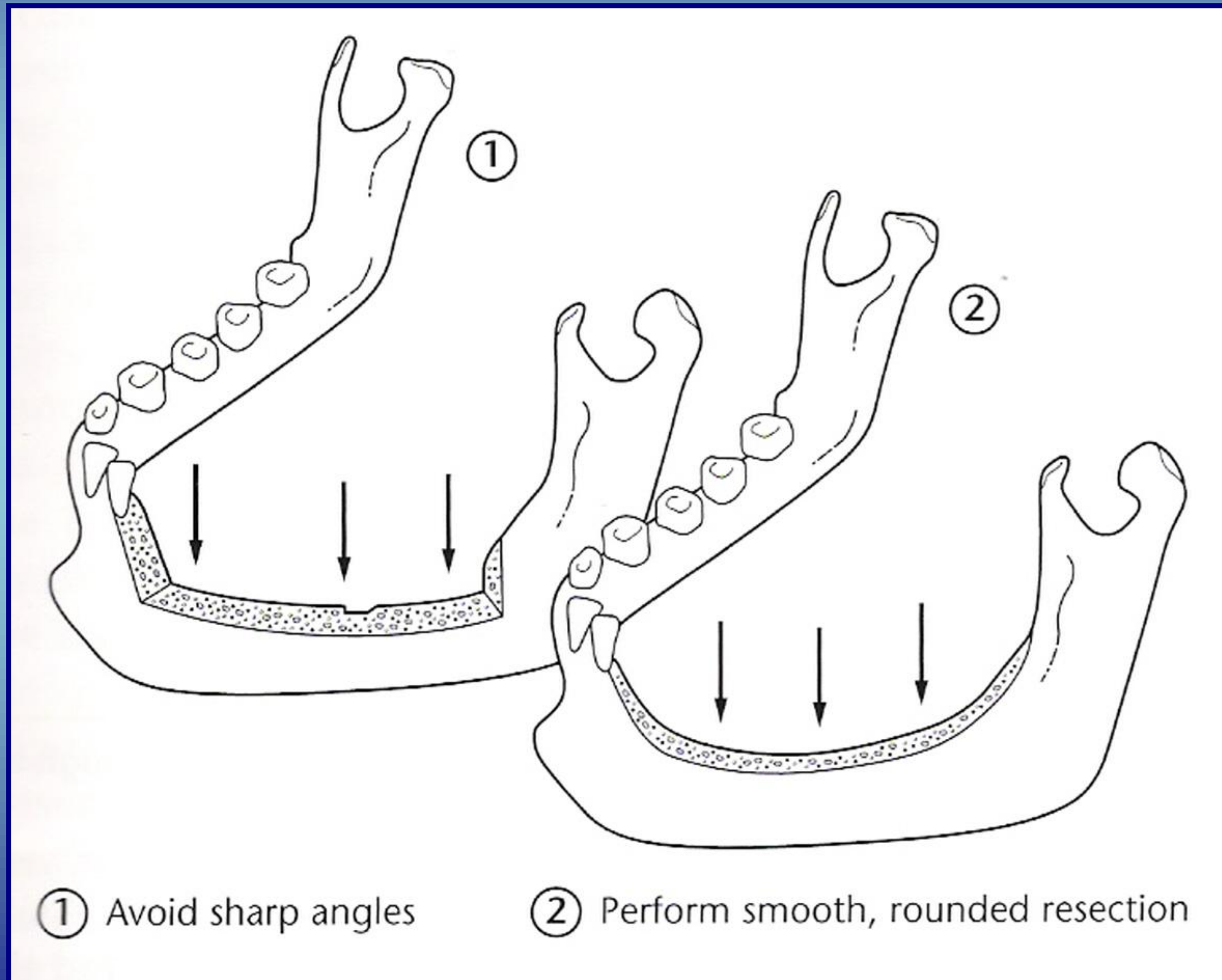
Resezione composita per via transmandibolare conservativa

Mandibulectomia marginale



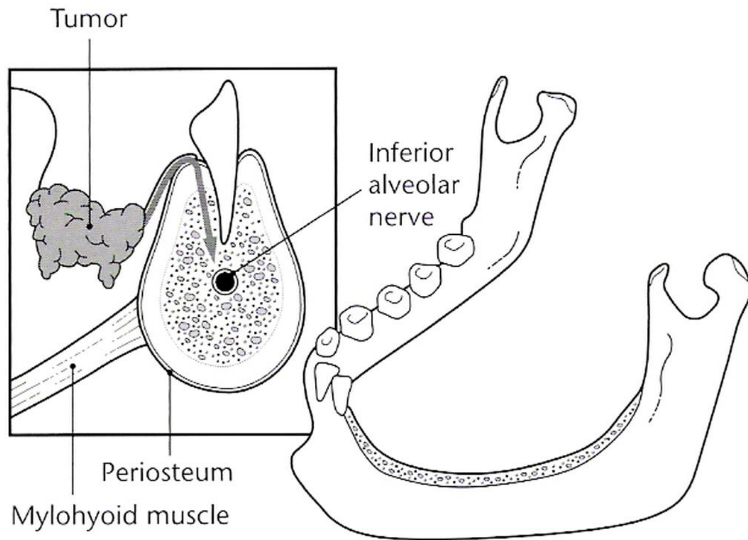
Resezione composita per via transmandibolare conservativa

Mandibulectomia marginale

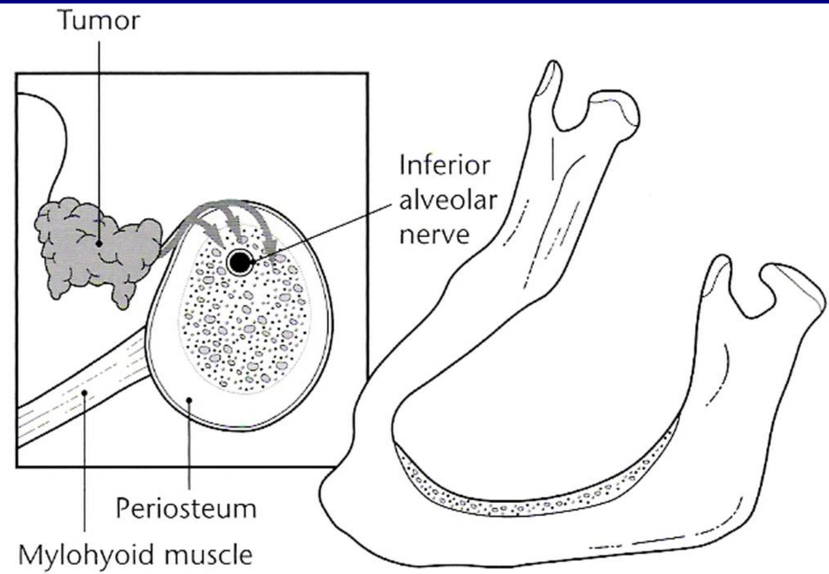


Resezione composita per via transmandibolare conservativa

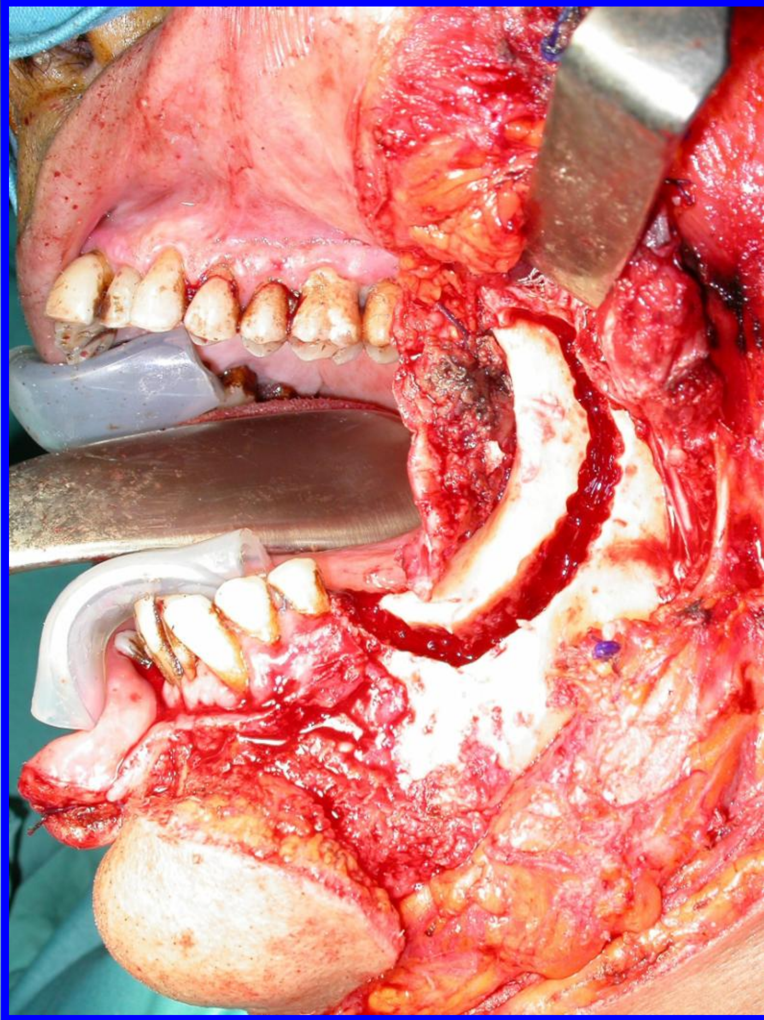
Mandibulectomia marginale

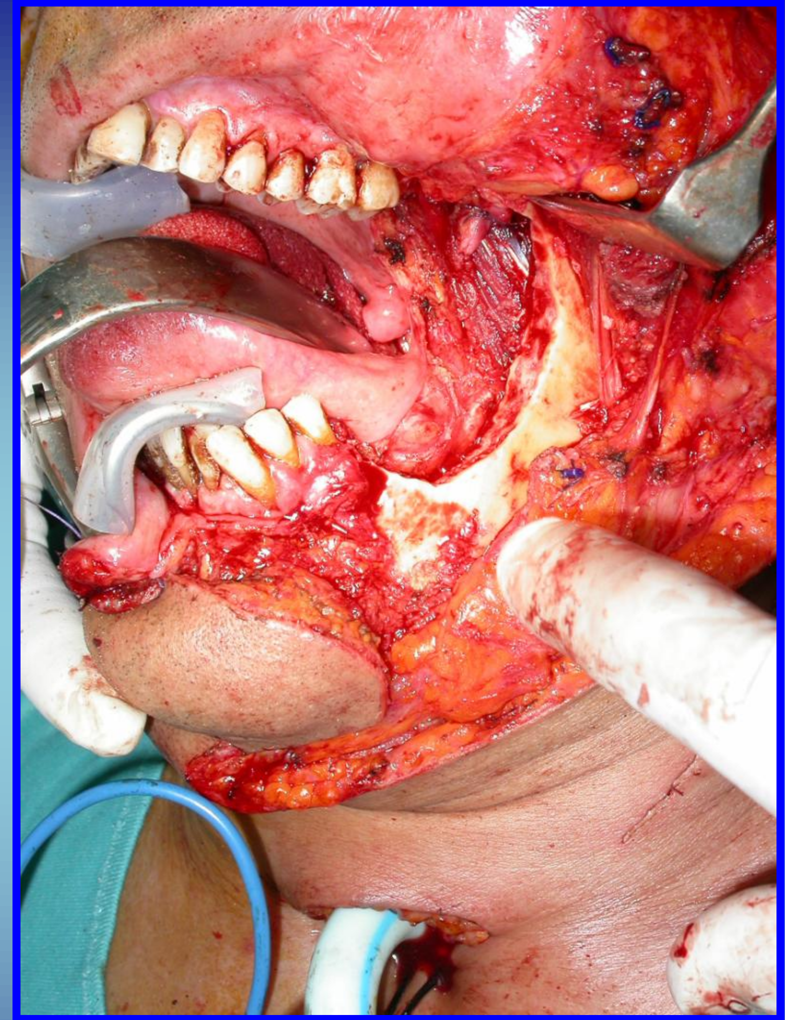


Marginal mandibulectomy feasible for invasion of the alveolar process or minimal cortical erosion



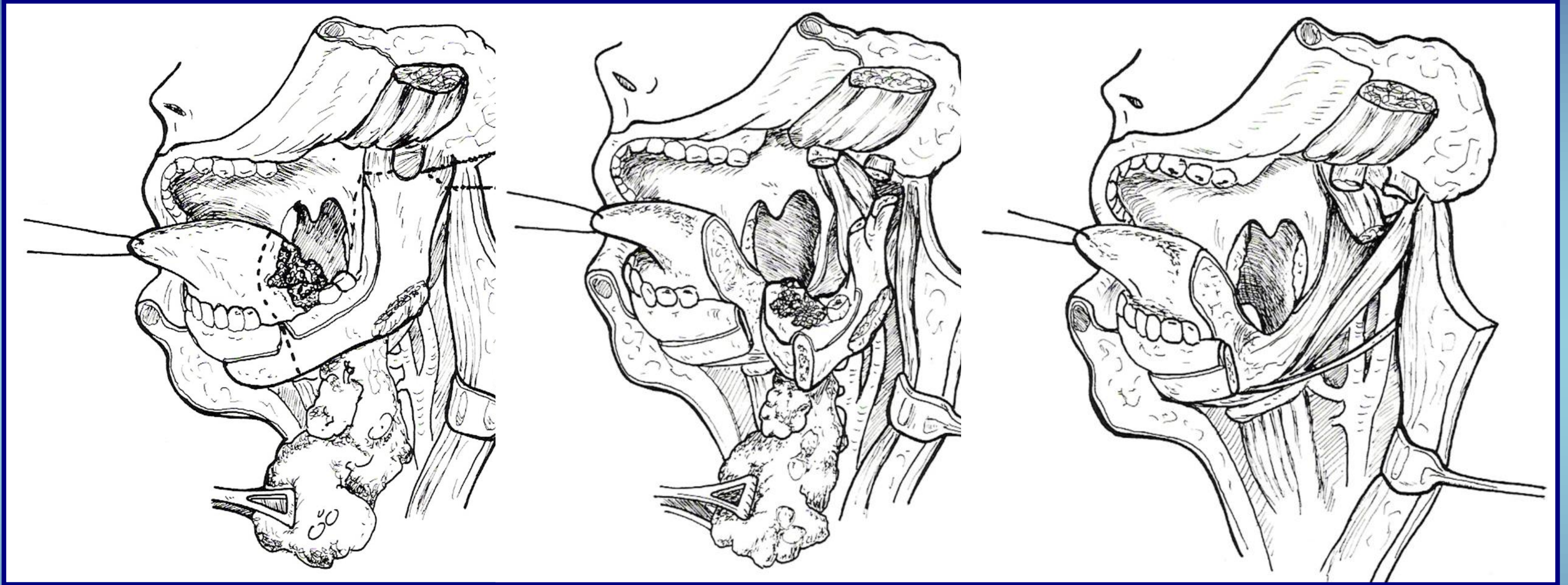
Marginal mandibulectomy feasible for minimal erosion of the alveolar process if the vertical height of the mandible is adequate

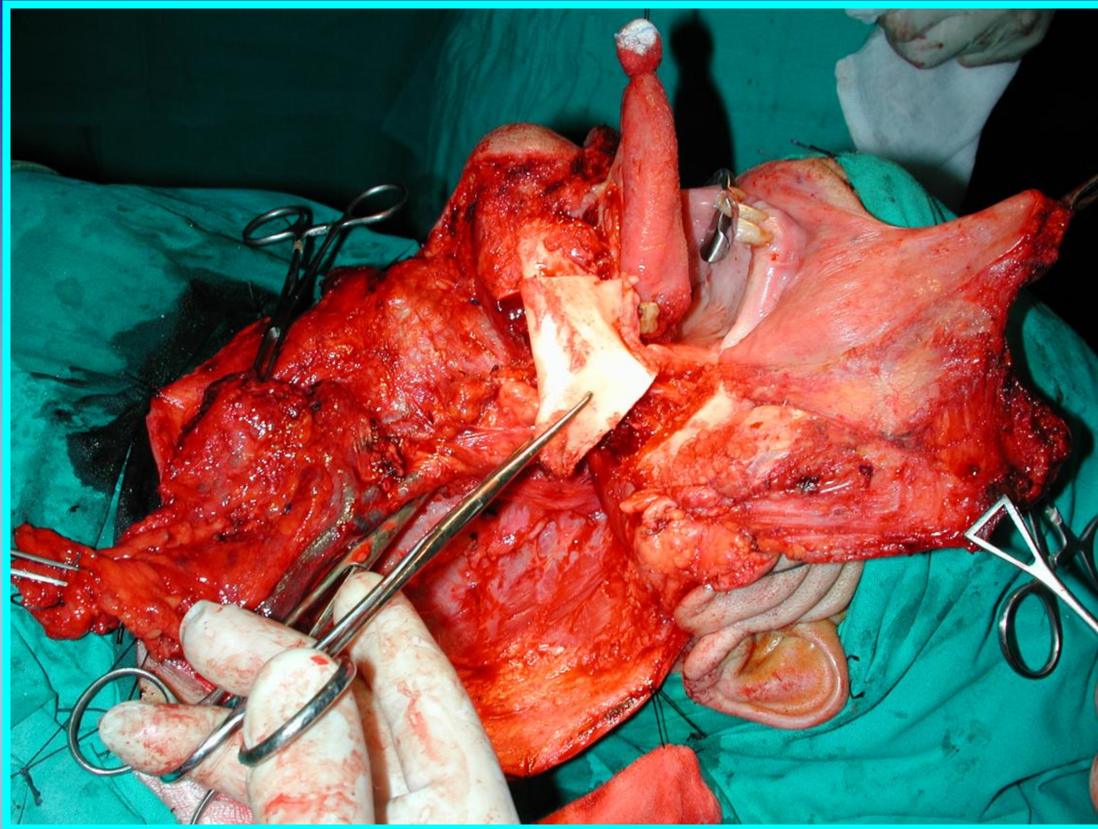


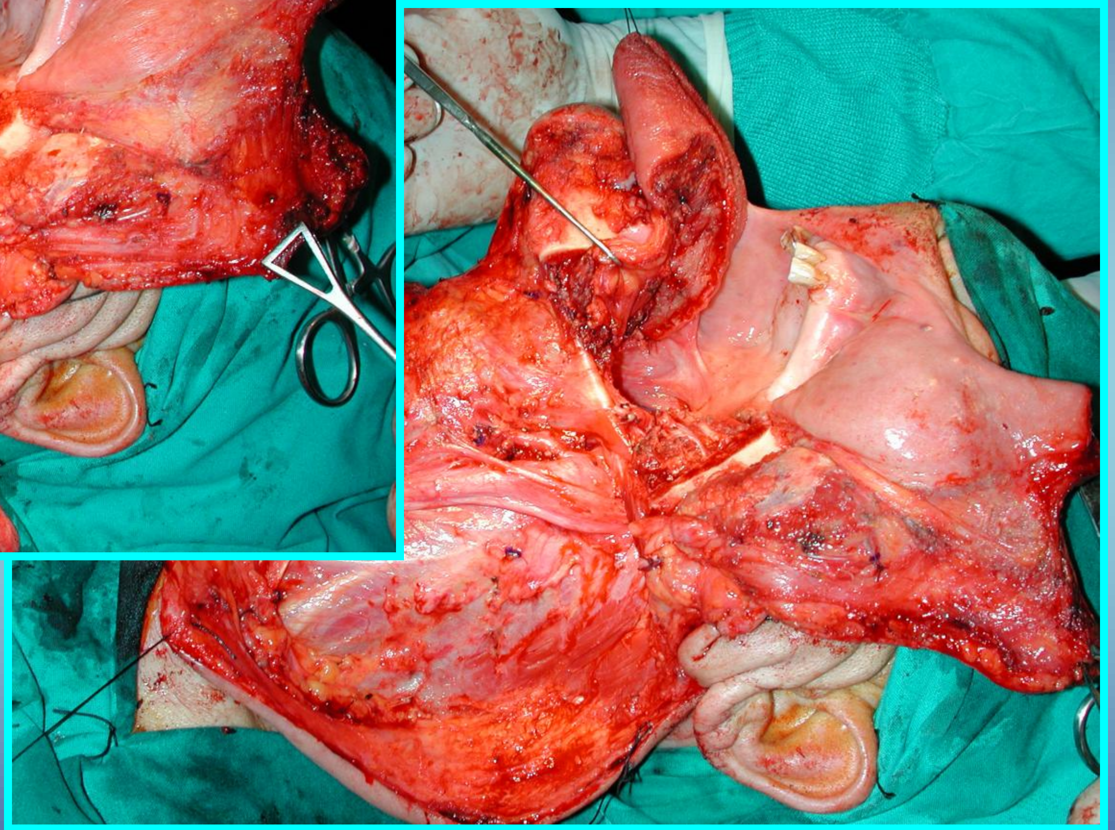


Resezione composita con mandibulectomia marginale

Resezione composita per via transmandibolare demolitiva

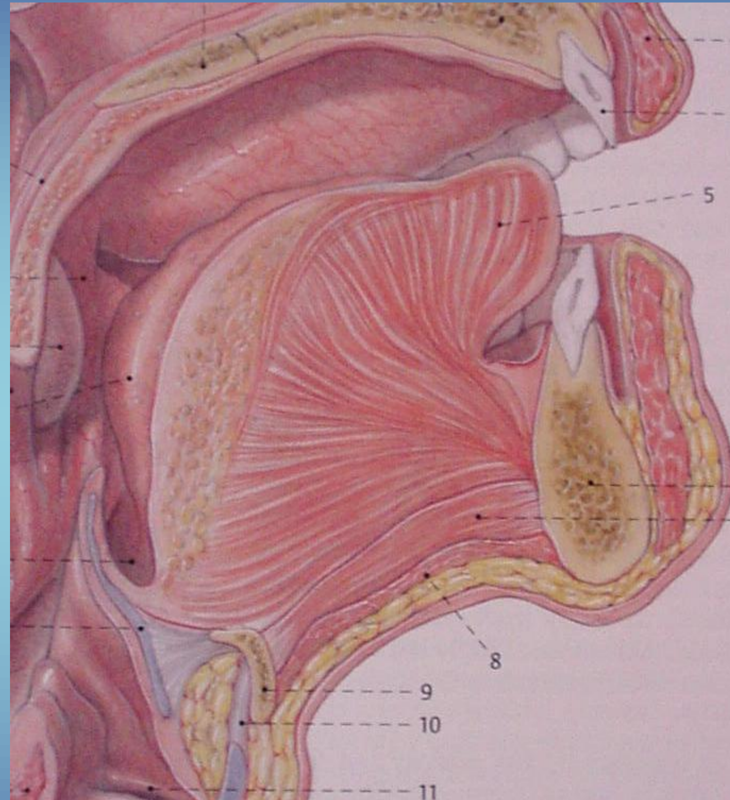






Resezione composita transmandibolare demolitiva

Ripristino della funzione



Chirurgia compartimentale:
Ricostruzione di unità anatomico-funzionale

LEMBI PEDUNCOLATI

Lembi cutanei

- Lembo Naso-labiale
- Lembo Frontale

Lembi Fasciocutanei

- Lembo Deltopettorale (Bakamjian)
- Lembo a "spalletta"

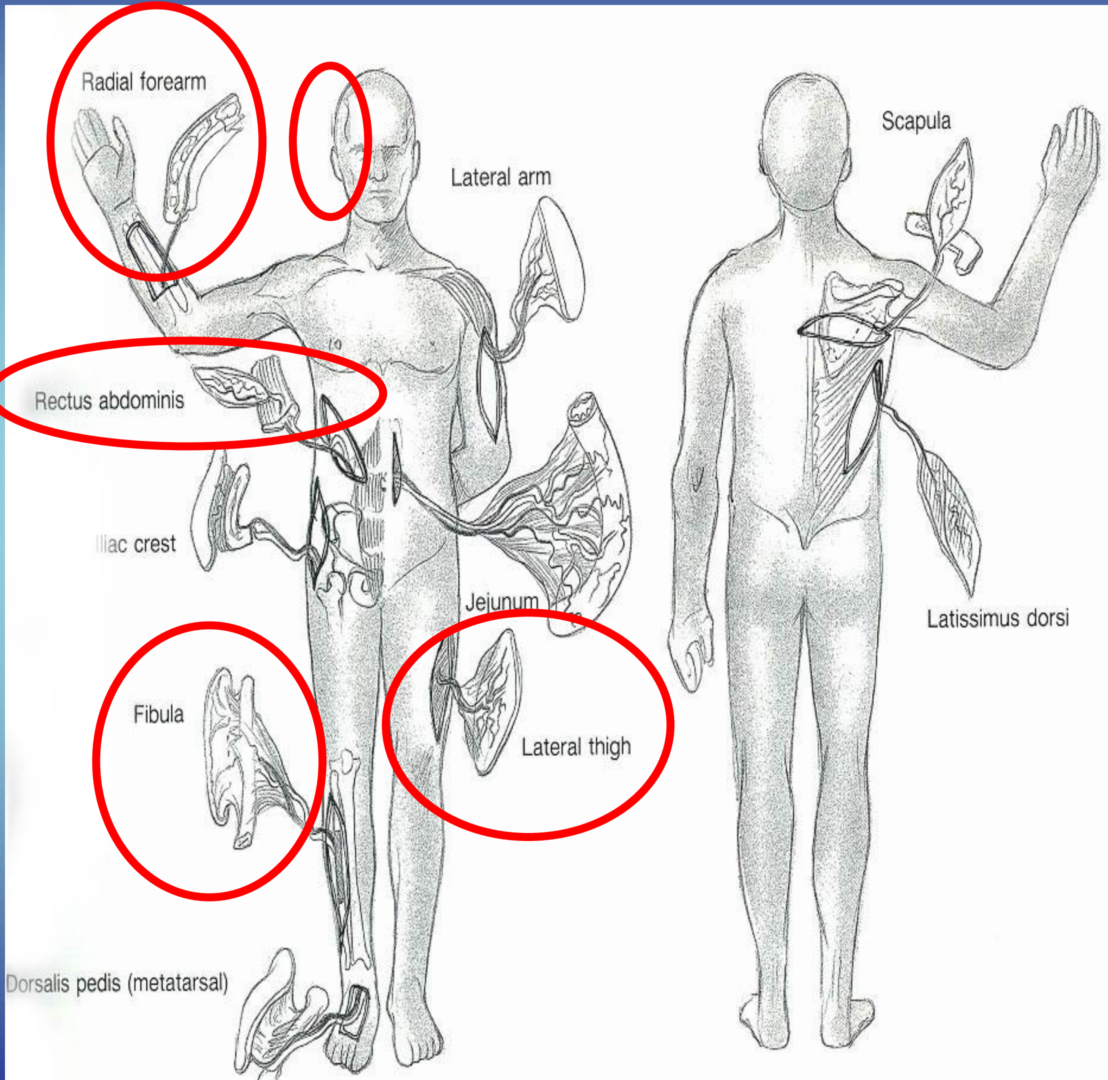
Lembi Muscolari

- Lembo di gran pettorale
- Lembo miocutaneo di trapezio
- Lembo Temporale
- Lembo miocutaneo di sternocleidomastoideo
- Lembo miocutaneo di Latissimus Dorsi

LEMBI LIBERI

- Lembo radiale antibrachiale
- Lembo di fibula
- Lembo di retto addominale
- Lembo di digiuno
- Lembo di cresta iliaca
- Lembo anterolaterale di coscia

Quale lembo?



La scelta tra le varie metodiche è condizionata dall'entità, dalla forma e dalla funzione del tratto da ricostruire considerando la necessità di ricostruzione ossea, dei tessuti molli o le finalità riempitive della ricostruzione

NOSTRA ESPERIENZA

ACTA OTORHINOLARYNGOLOGICA ITALICA 2008;28:7-12

ONCOLOGY

Anterolateral thigh cutaneous flap *vs.* radial forearm free-flap in oral and oropharyngeal reconstruction: an analysis of 48 flaps

Lembo anterolaterale di coscia vs. *lembo libero radiale nella ricostruzione orale ed orofaringea: un'analisi di 48 lembi*

A. CAMAIONI, A. LORETI[1], V. DAMIANI, M. BELLIONI[1], F.M. PASSALI, C. VITI
ENT Department; [1] Plastic and Reconstructive Surgery Unit, "San Giovanni – Addolorata" Hospital, Rome, Italy

Gennaio 2003-Gennaio 2011

119 lembi liberi in pazienti affetti da carcinoma del cavo orale od oro-ipofaringeo.

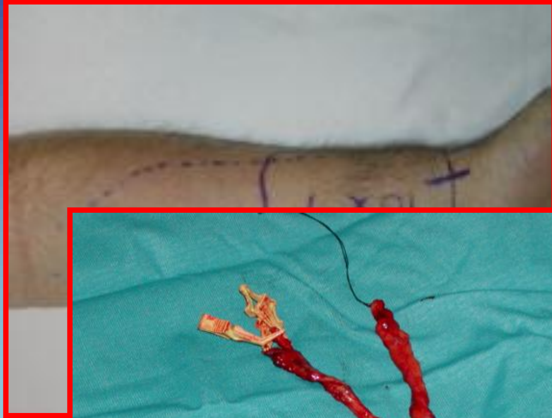
Gennaio 2003-Gennaio 2011

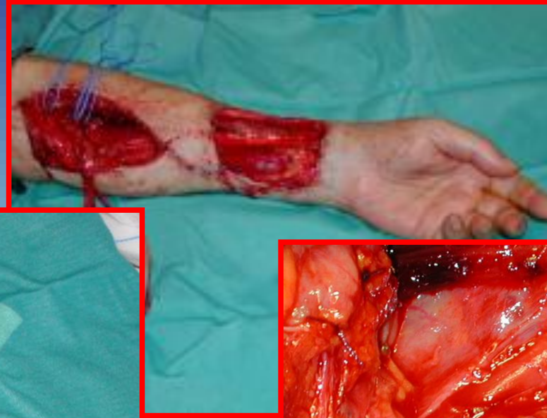
119 lembi liberi in pazienti affetti da carcinoma del cavo orale od oro-ipofaringeo.

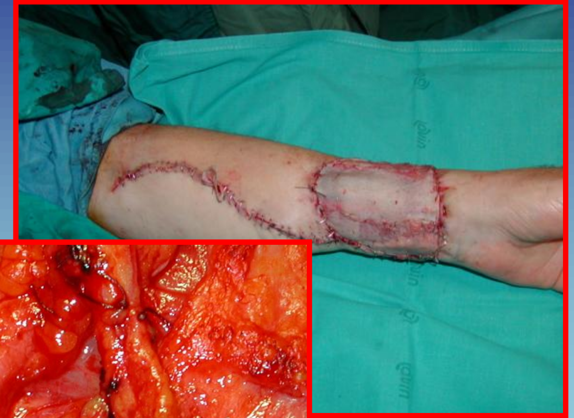
27 lembi radiali antibrachiali (RFFF)

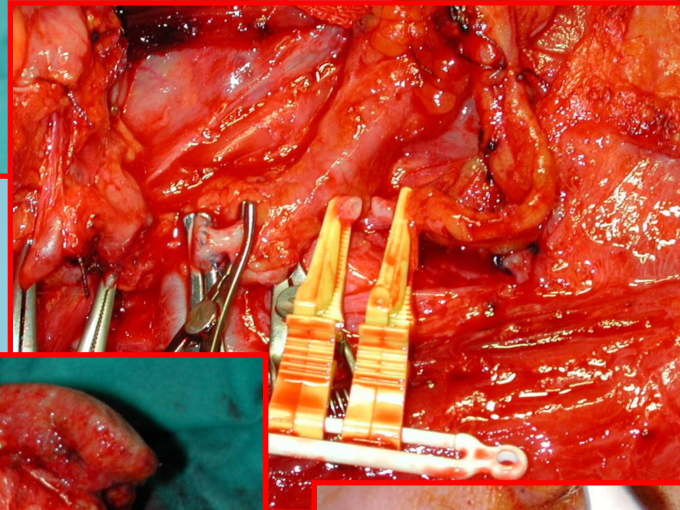
92 lembi antero-laterali di coscia (ALT)

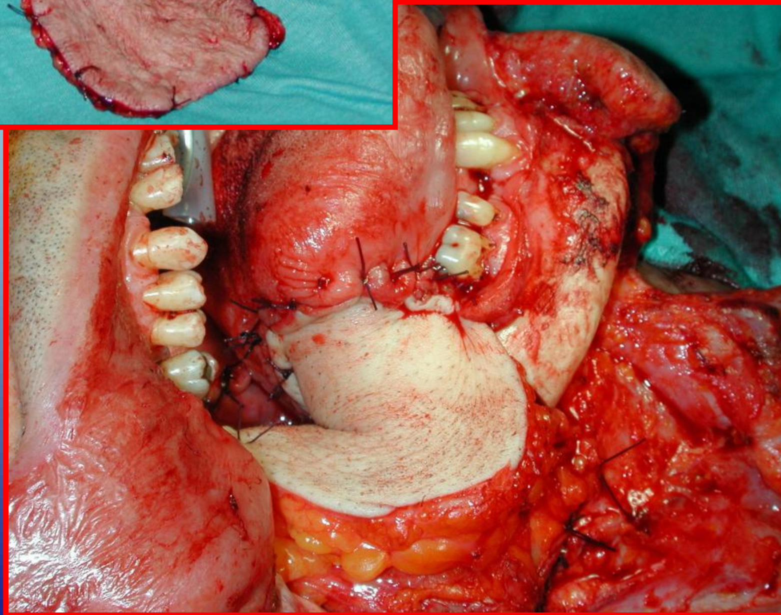
Lembo radiale antibrachiale

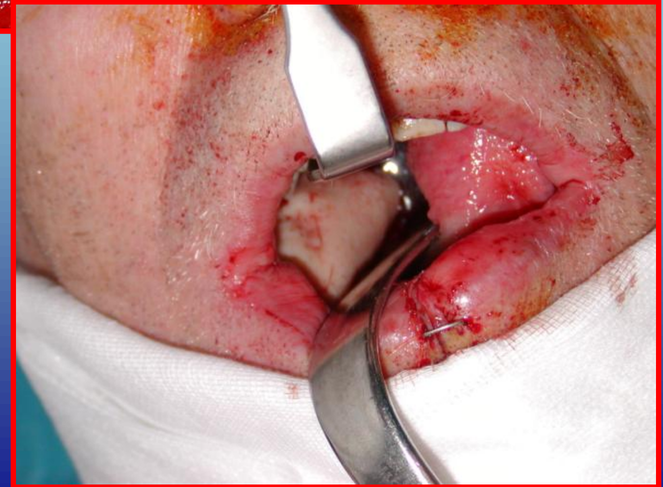




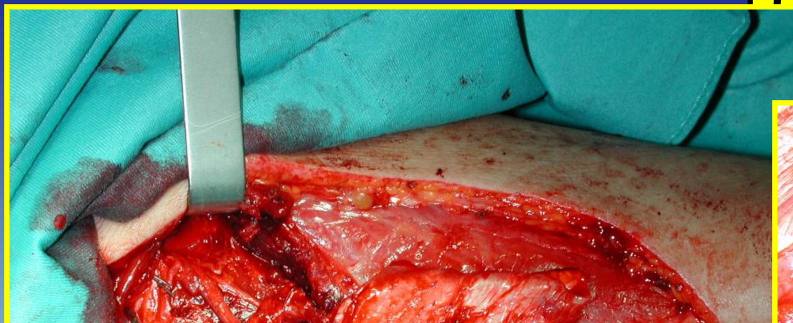


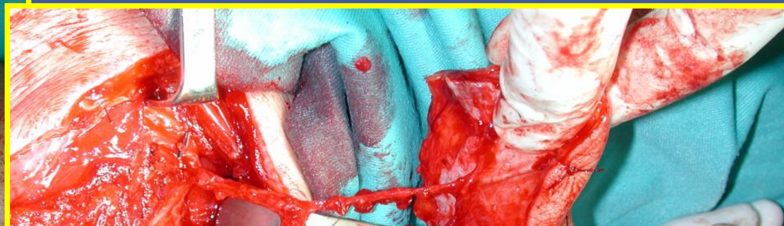


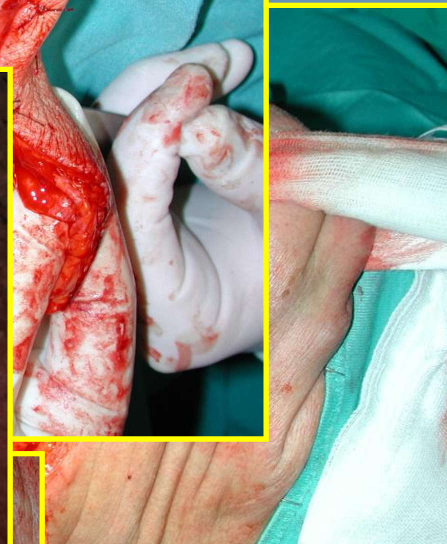


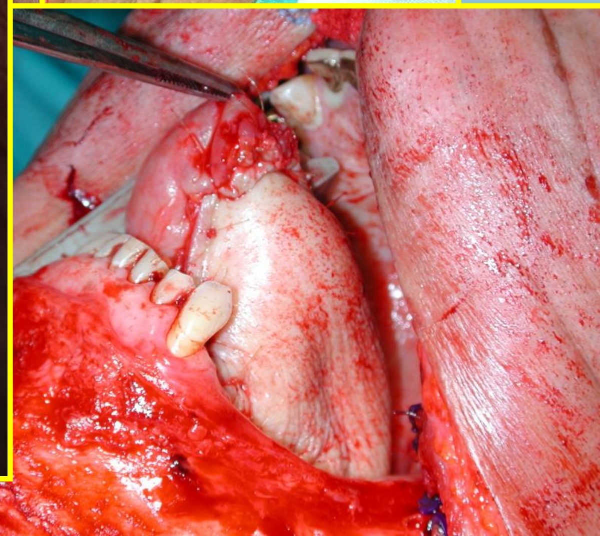


Lembo Anterolaterale di coscia



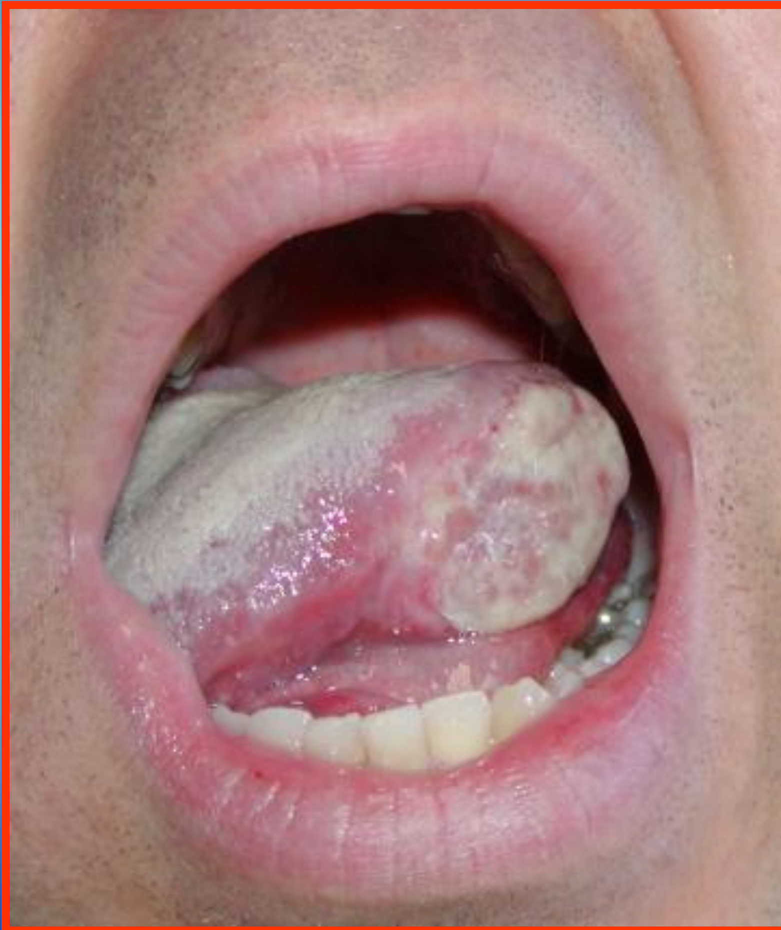


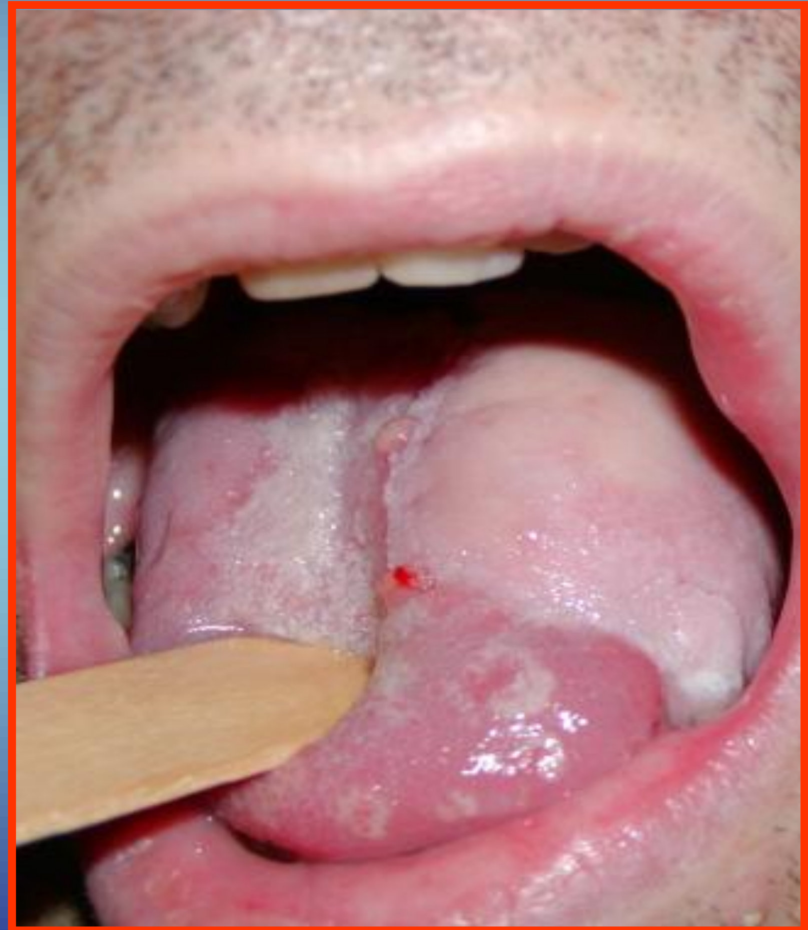




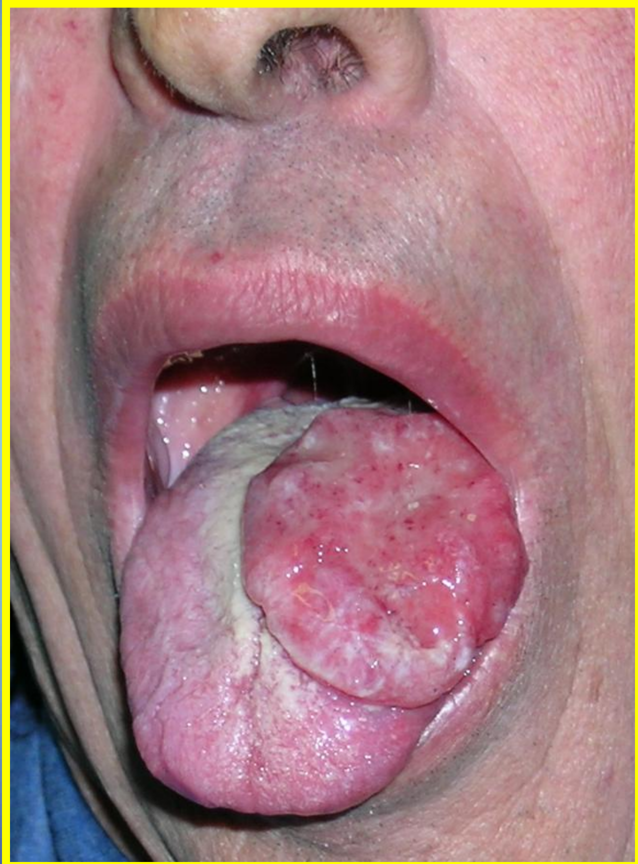
1 mese f. up

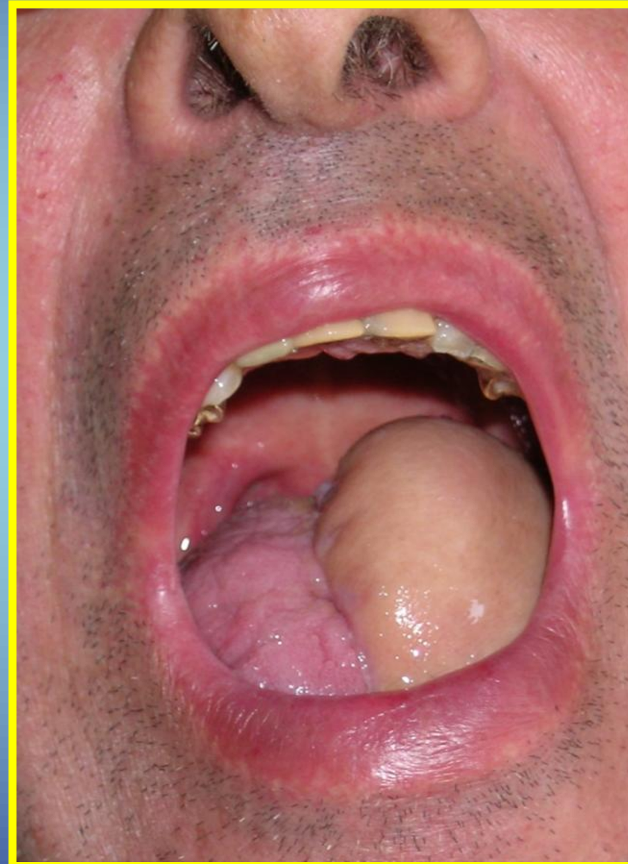
Lembo radiale antibrachiale

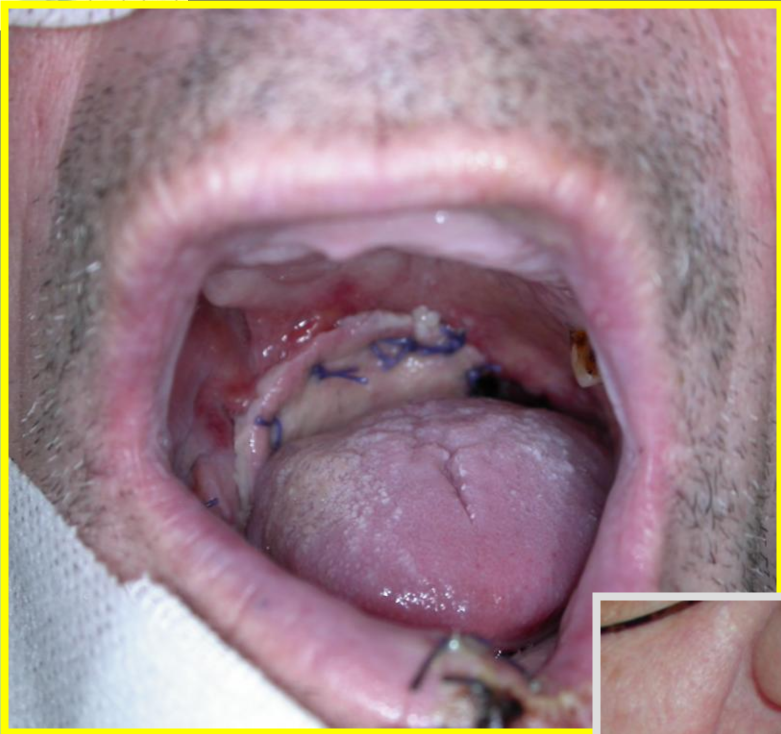


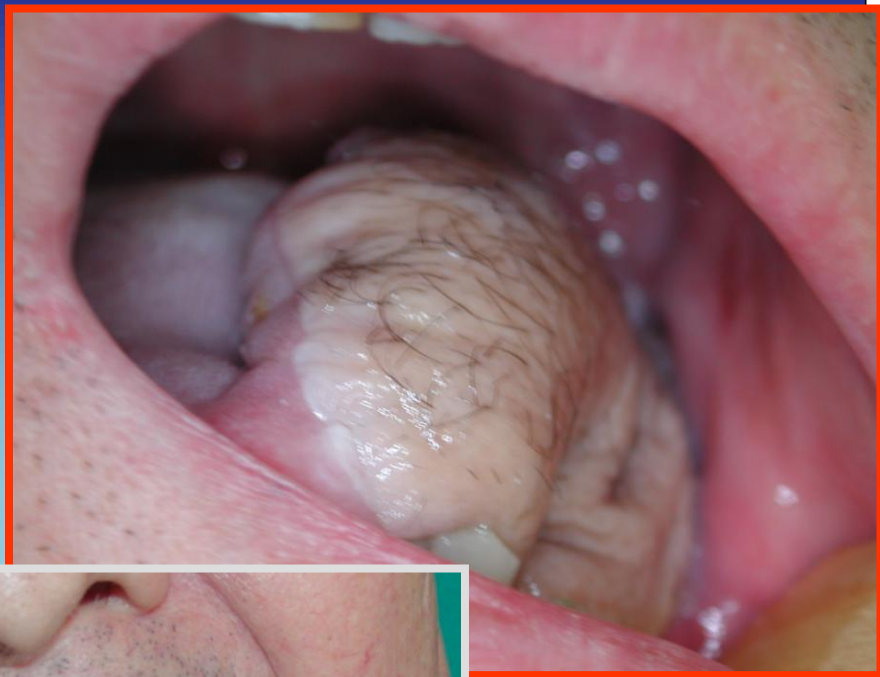


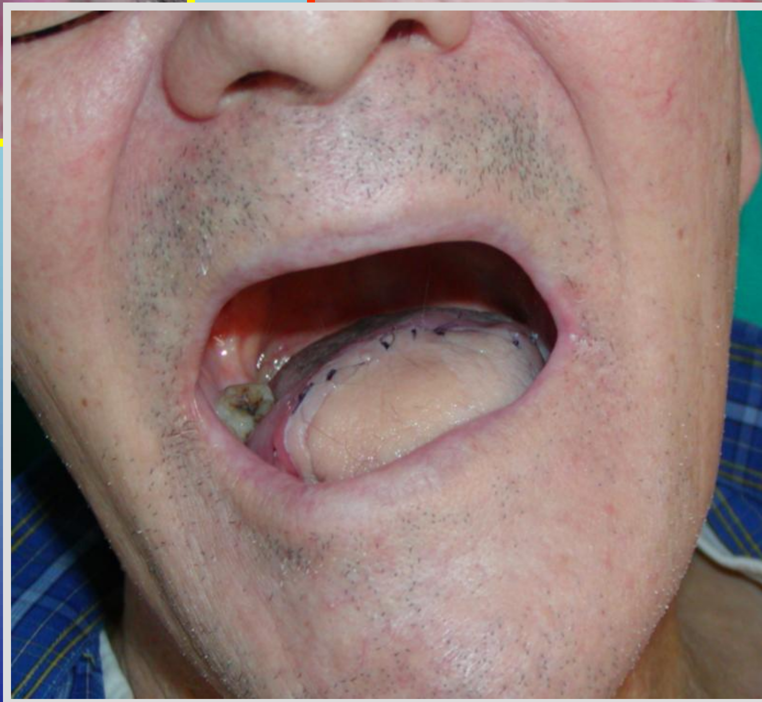
Lembo anterolaterale di coscia

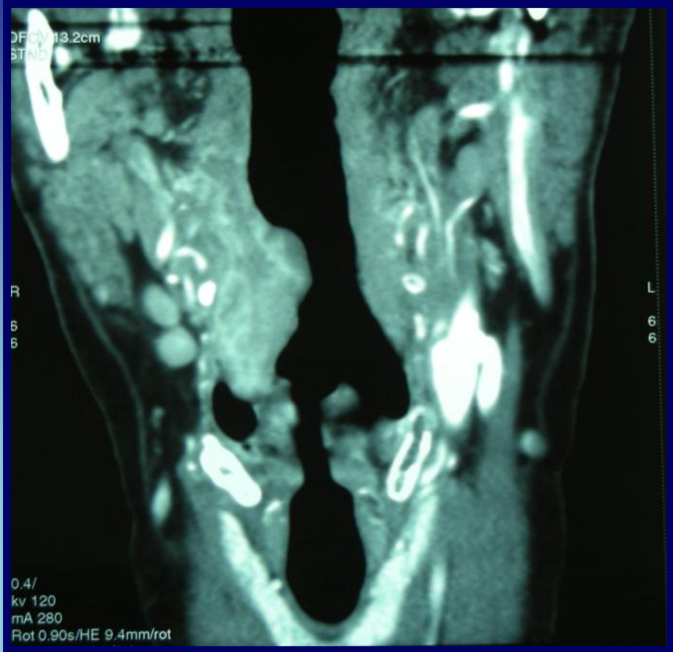


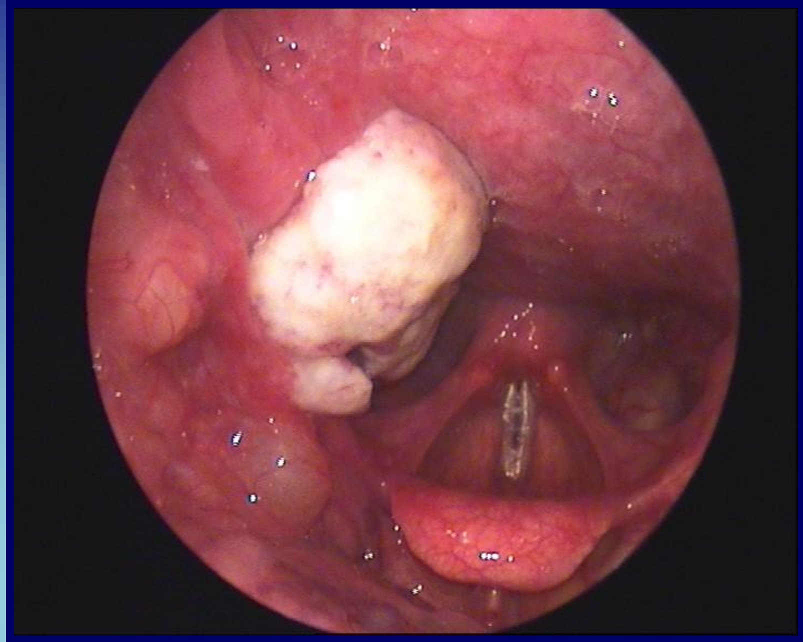


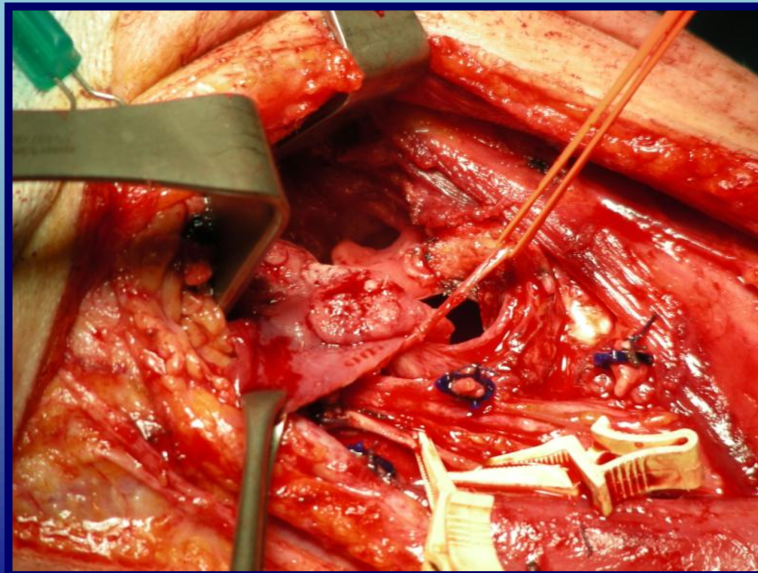


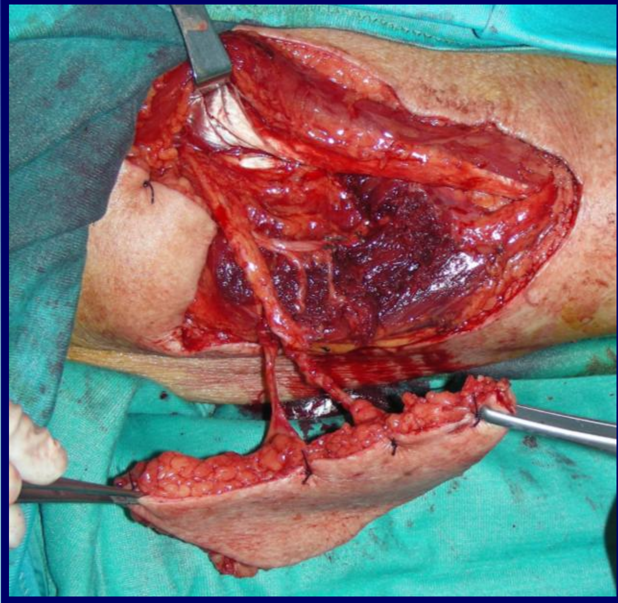


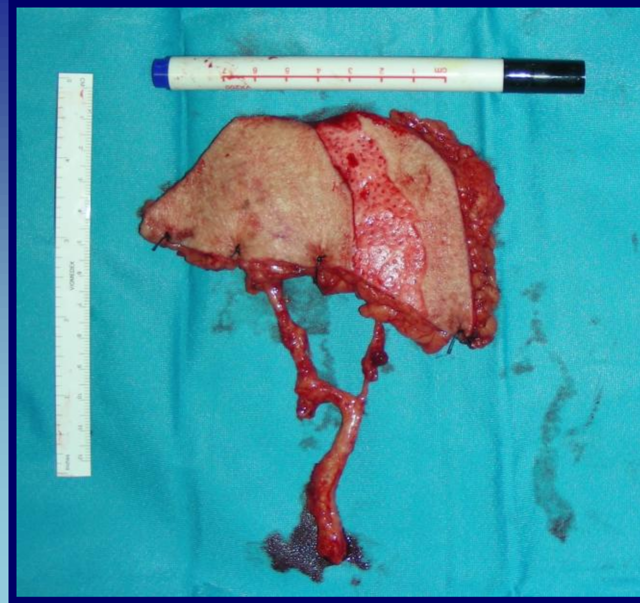


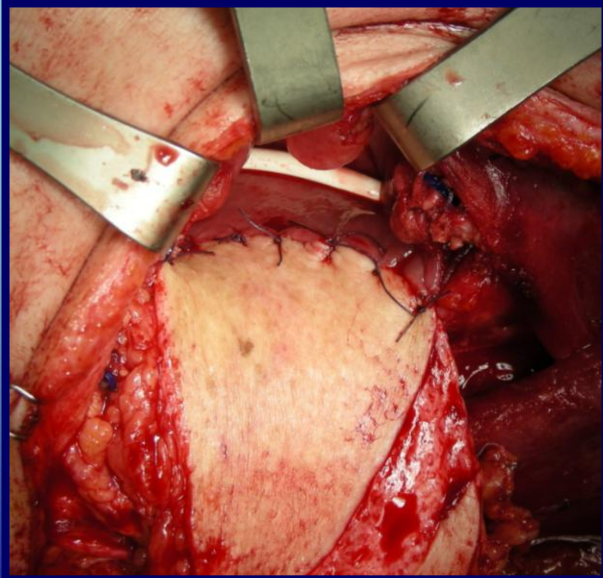

13.2cm
R
L
kv 120
mA 280
Rot 0.90s/HE 9.4mm/rot

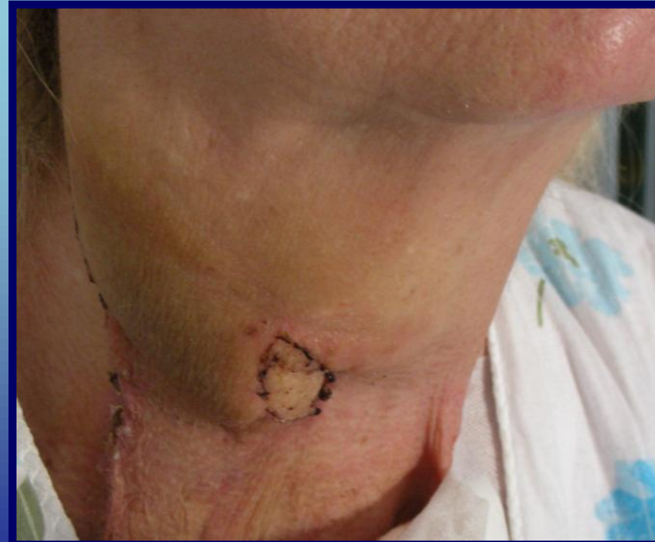




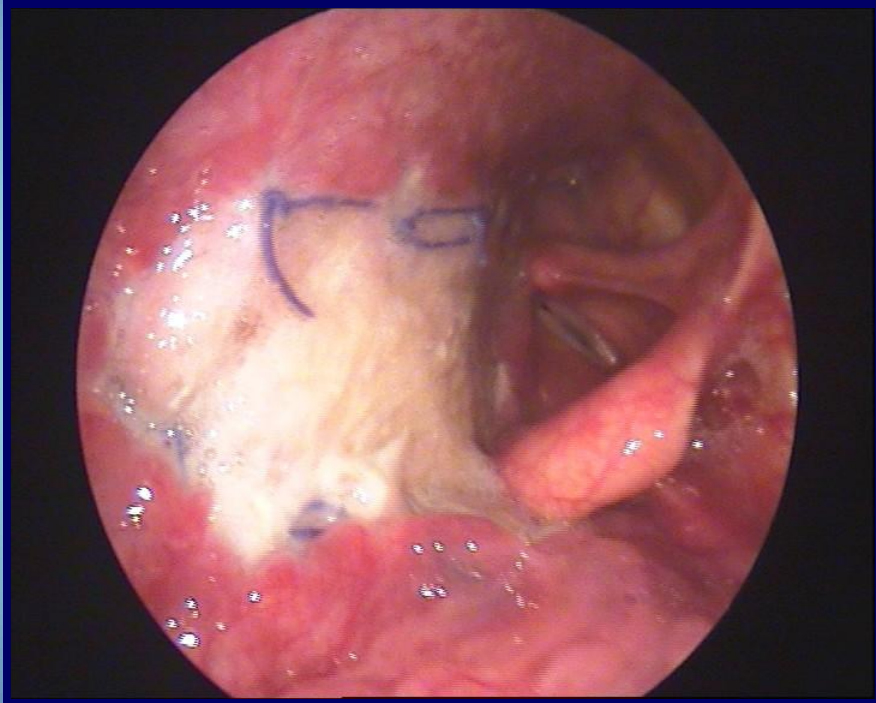


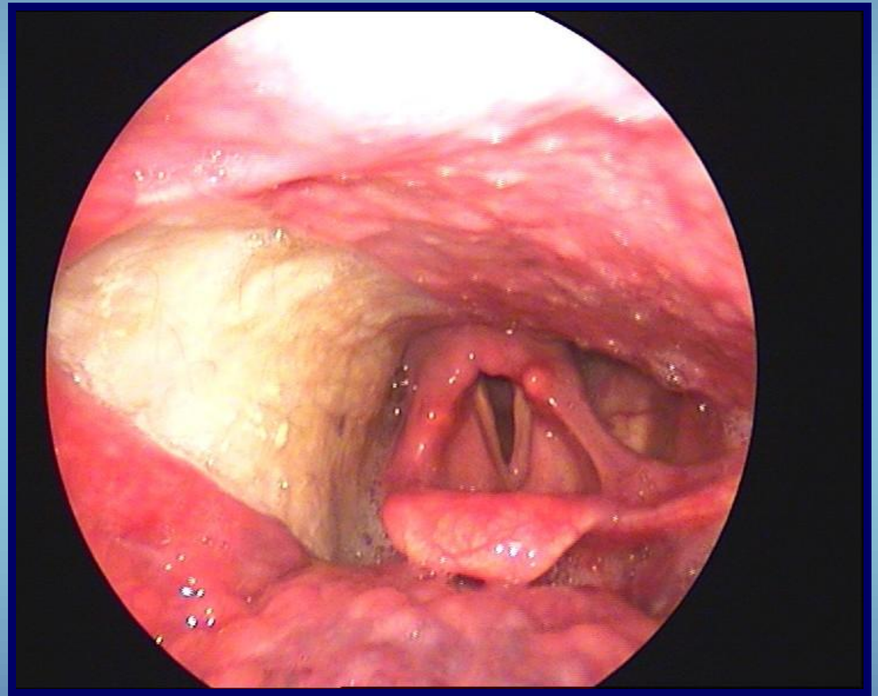




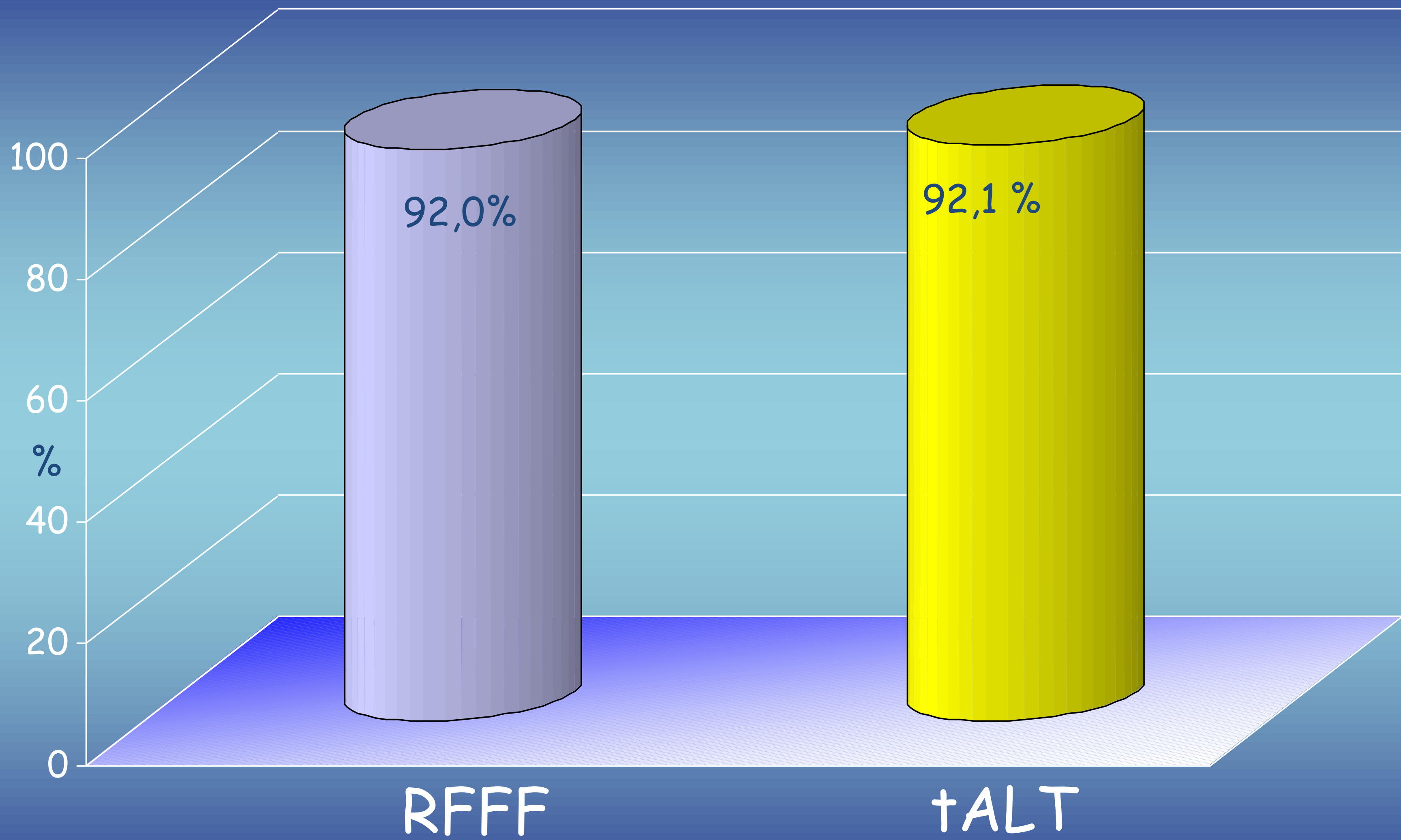


COMPLESSO OSPEDALIERO S. GIOVANNI ADDOLORATA ROMA



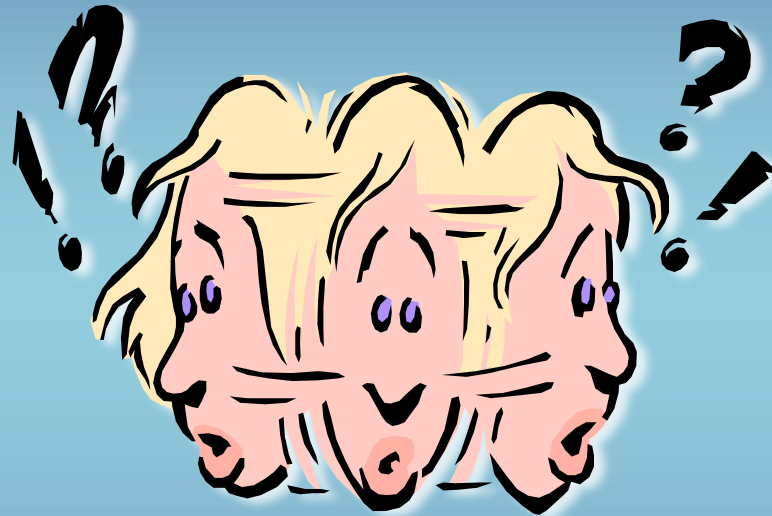


% di sopravvivenza del lembo

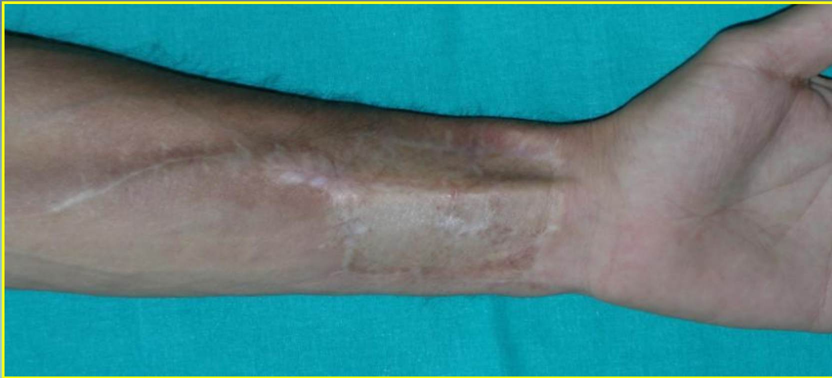


P = 0.9

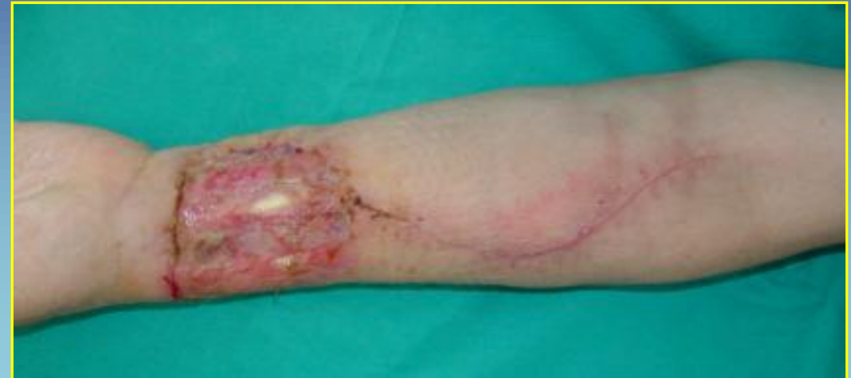
…e il sito donatore ?



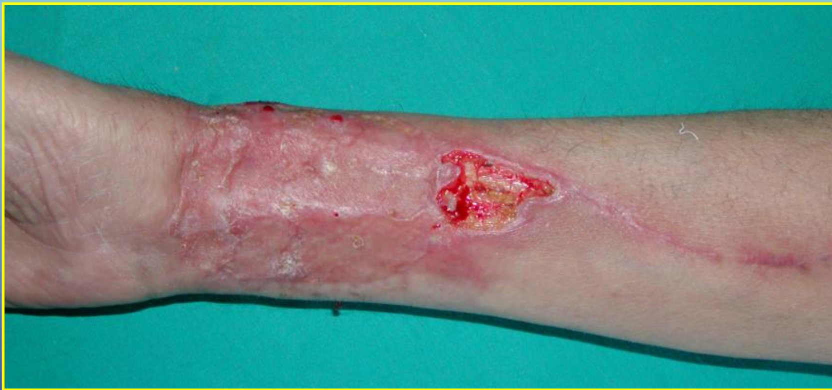
Lembo radiale antibrachiale



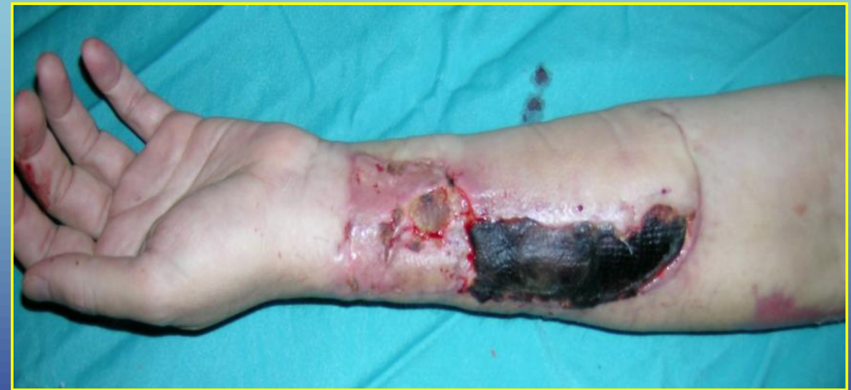
Retrazione cicatriziale



Esposizione tendinea

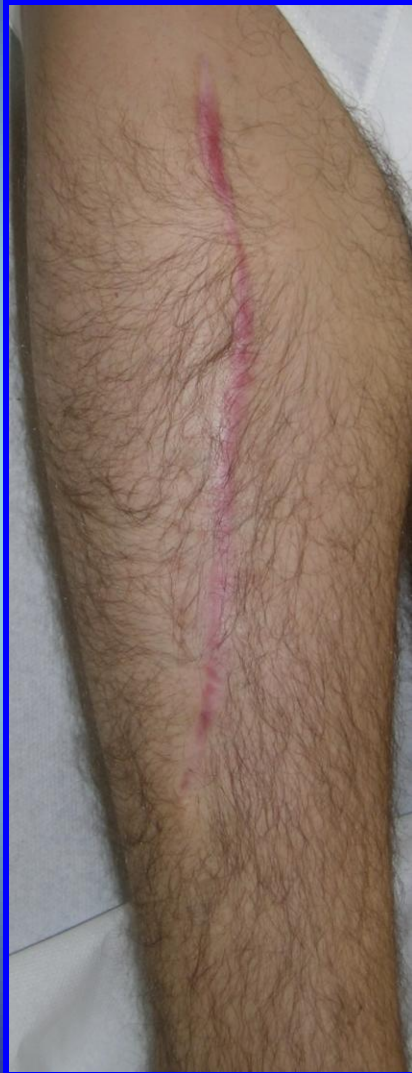


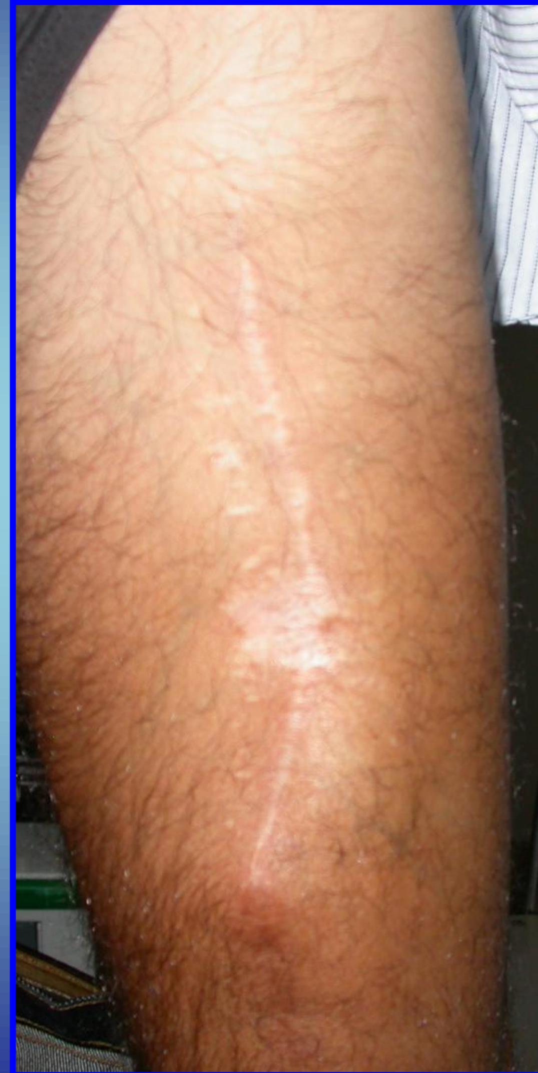
Necrosi parziale



Necrosi diffusa

Lembo anterolaterale di coscia





Necrosi o diastasi

RFFF

5 esposizioni tendinee

- Revisione chirurgica + skin graft

5 necrosi parziali dello skin graft

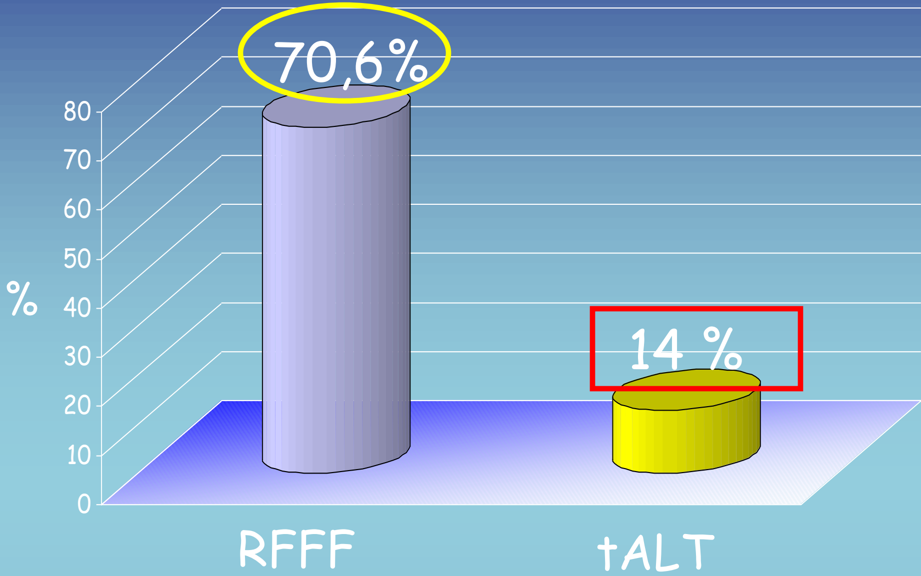
- 3 skin graft
- 2 guarigioni di 2 intenzione

ALT

3 diastasi parziale della sutura

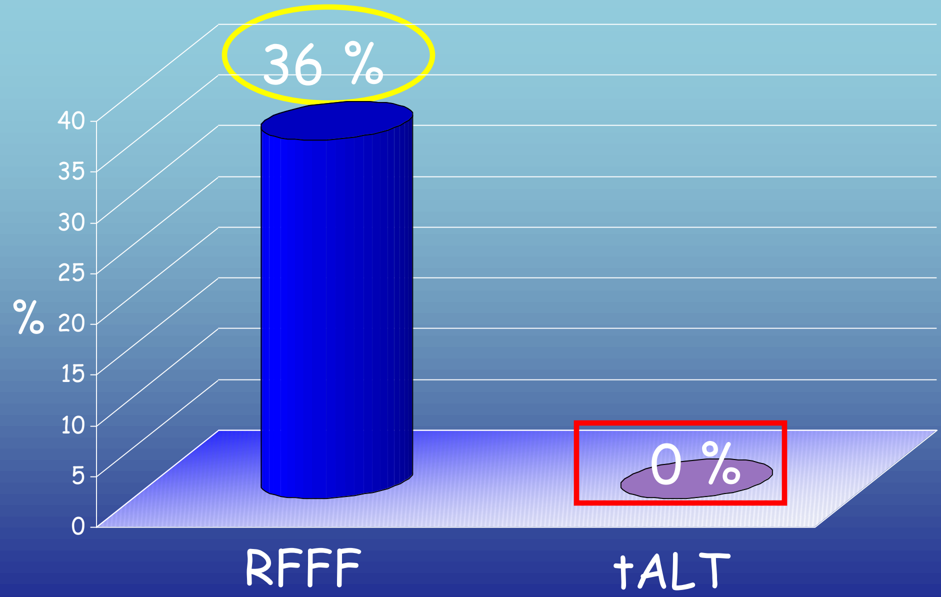
- 3 guarigioni di 2 intenzione

Alterazioni funzionali al sito donatore



Transitorie

Permanenti



COMPLESSO OSPEDALIERO S. GIOVANNI ADDOLORATA ROMA

Valutazione soggettiva sito donatore

%

60
50
40
30
20
10
0

0%
41,3%
58,7%
58,9%
41,1%
0%

RFFF
tALT

Conclusioni

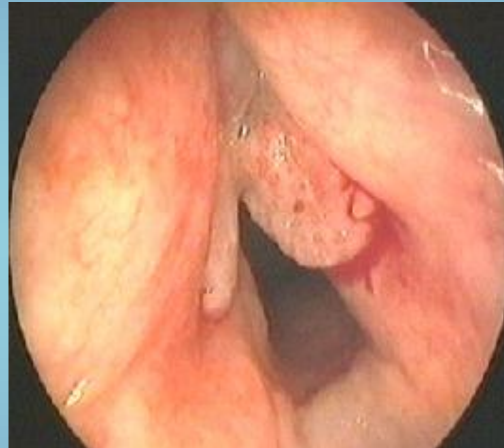
…nella nostra esperienza:

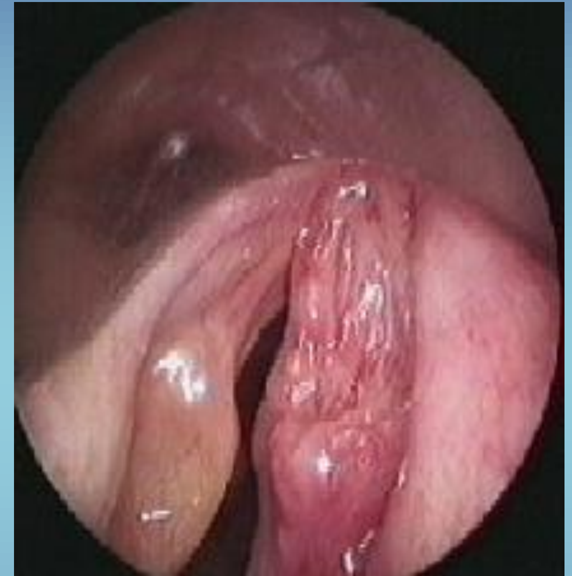
ALT vs RFFF: risultati funzionali sovrapponibili al sito ricevente

ALT → Minori limitazioni funzionali al sito donatore rispetto al RFFF

ALT → non limitazioni di "tessuto donatore"

carcinoma laringeo





Radioterapia

resezione endoscopica

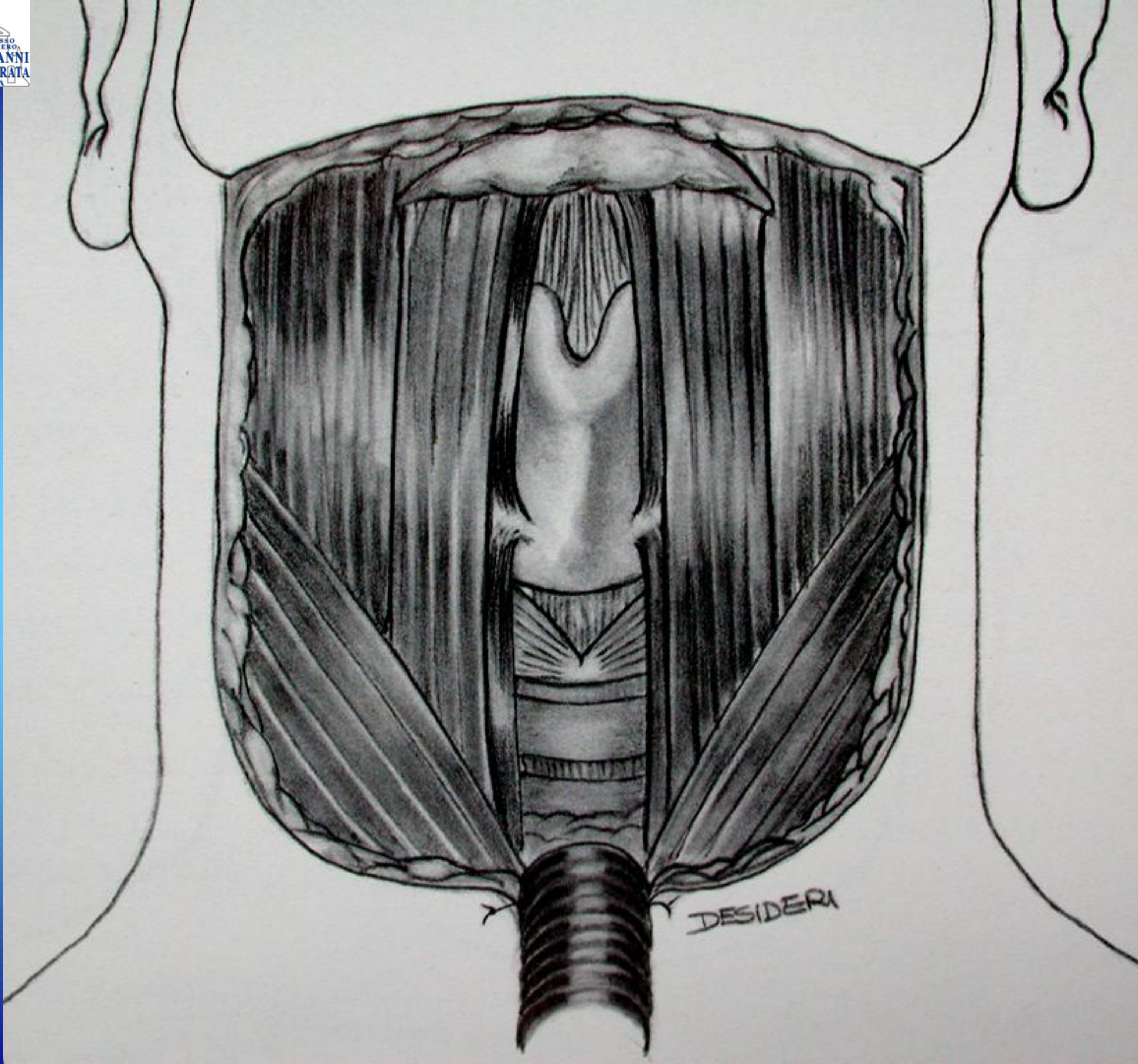
chirurgia a cielo aperto

Tumori Faringo-laringei

- Cordectomie endoscopiche con laser CO2
- Laringectomia sovra-glottica
- Laringectomie ricostruttive sovracricoidee
- L. “ricostruttive” con tracheoioidopessia
- Laringectomie totali

Lairngectomia totale

COMPLESSO OSPEDALIERO
S. GIOVANNI ADDOLORATA
ROMA



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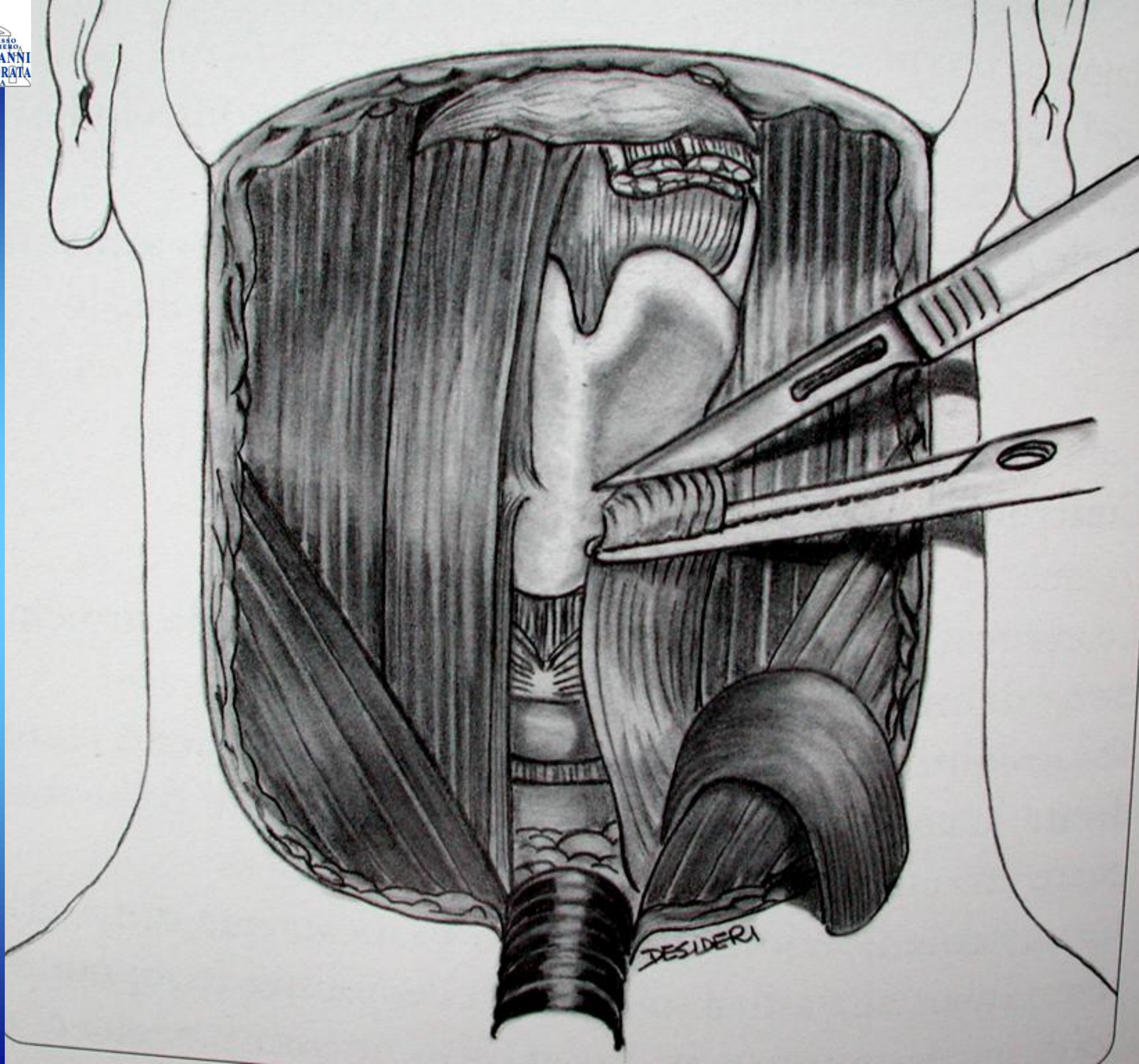
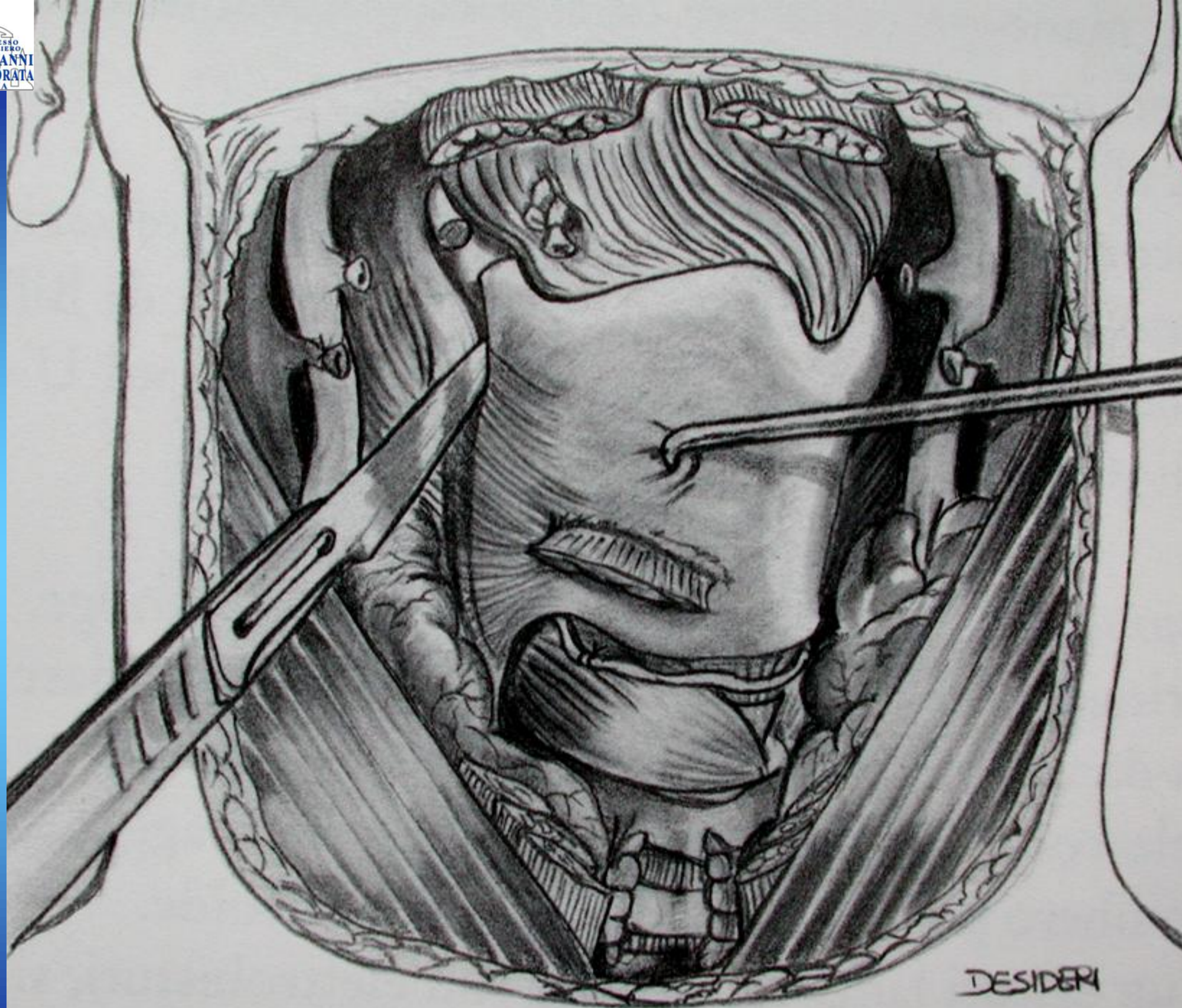
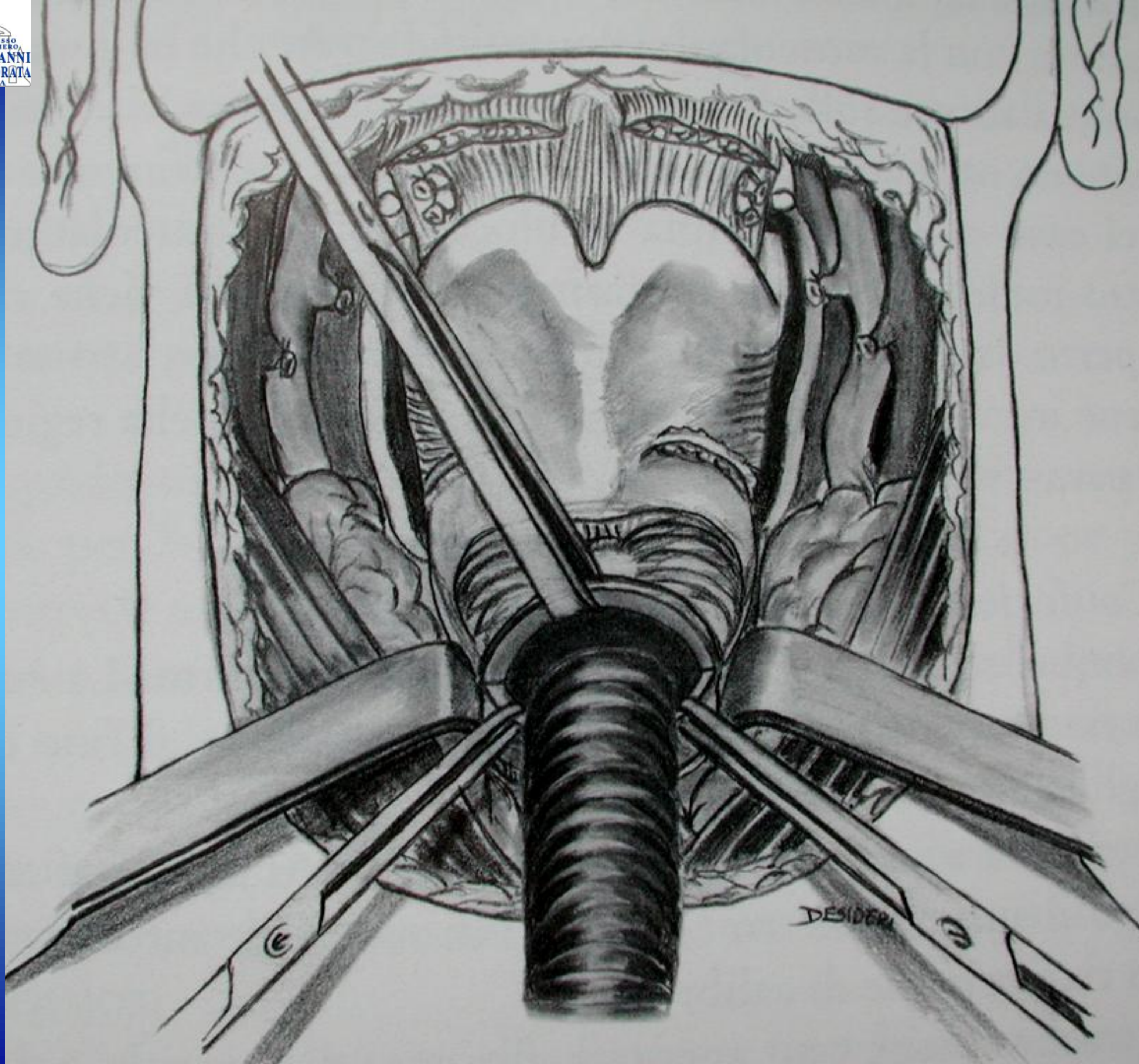
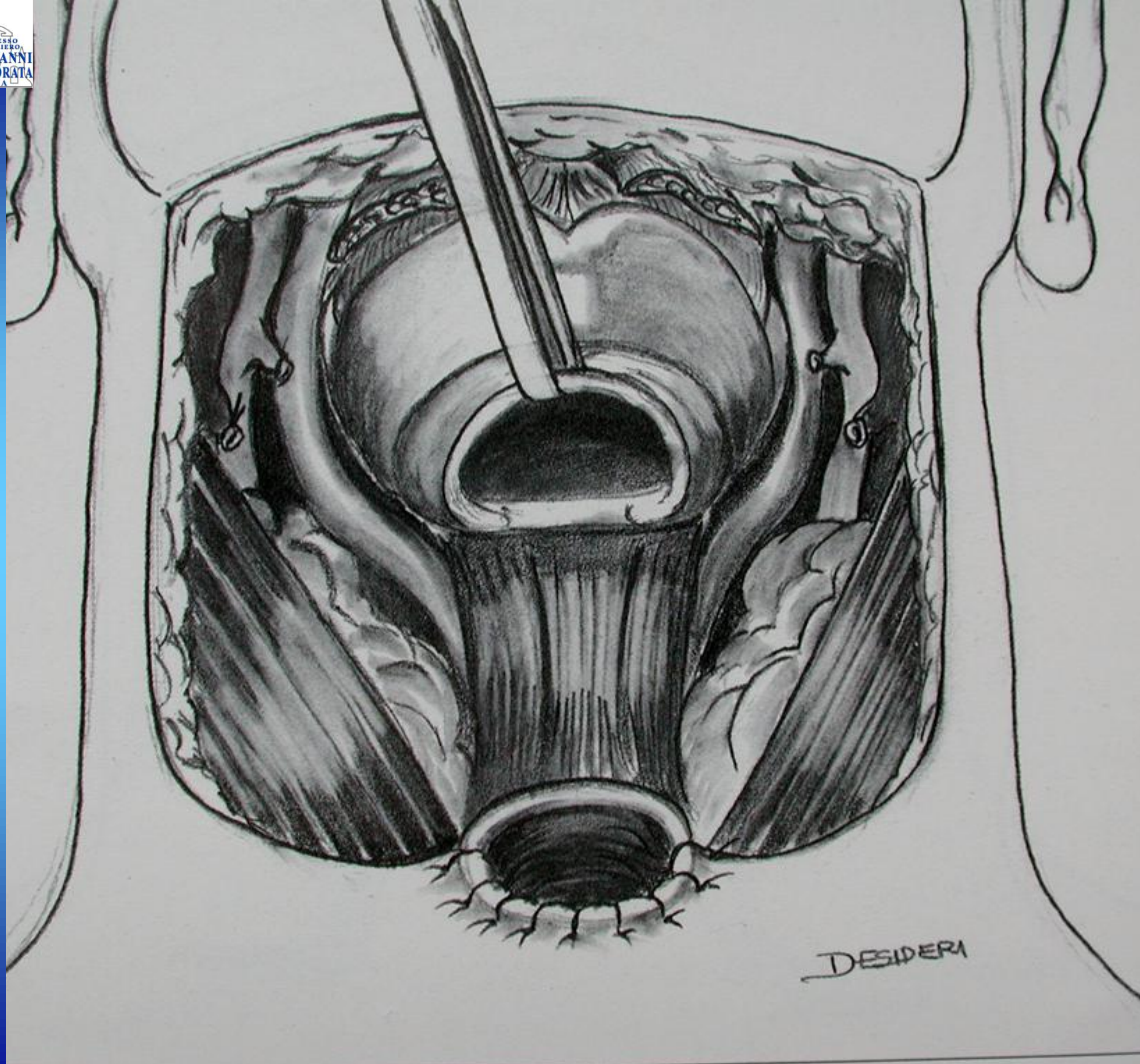


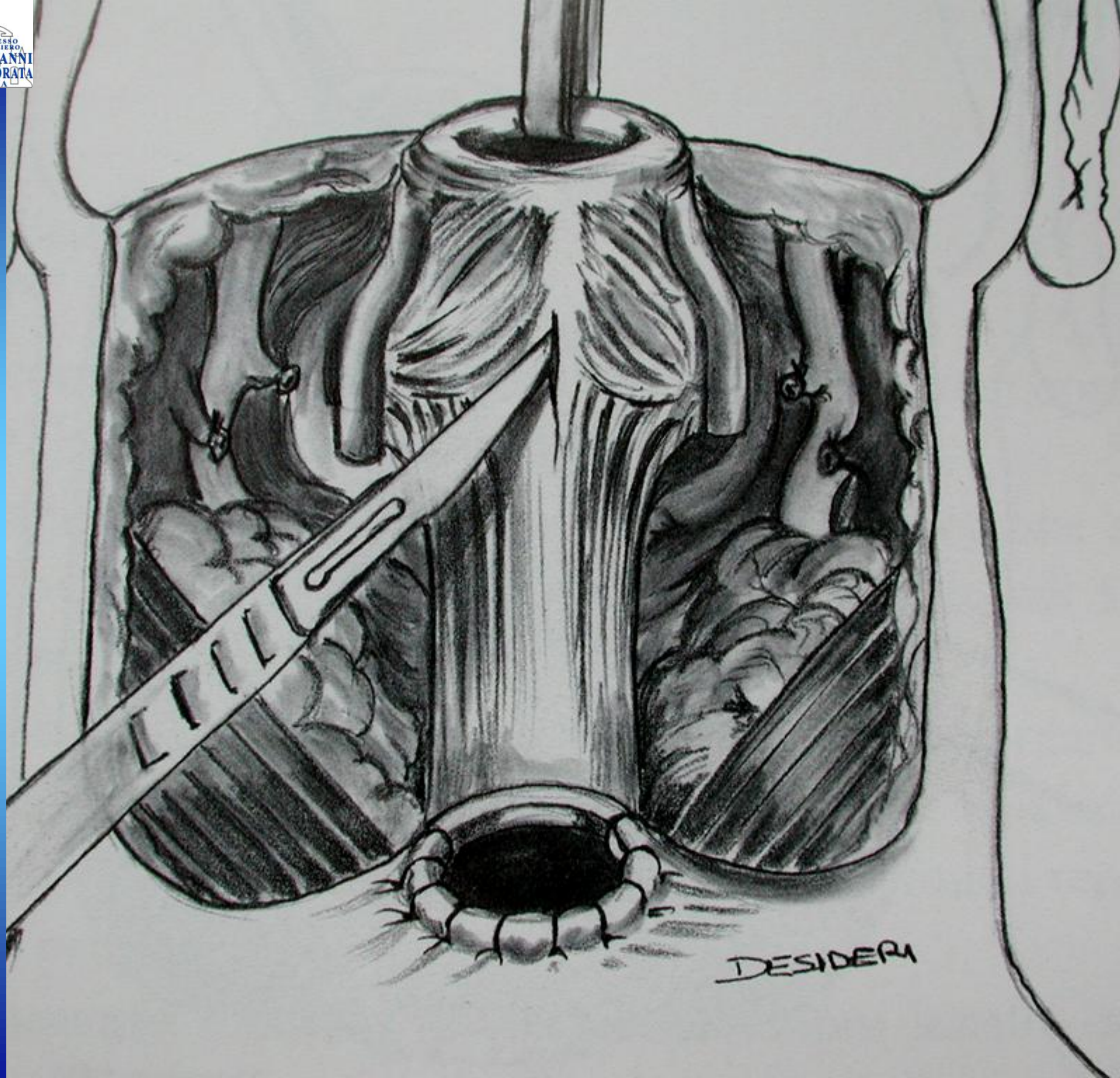

DESIDERI


DESIDERI

COMPLESSO OSPEDALIERO S. GIOVANNI ADDOLORATA ROMA



COMPLESSO OSPEDALIERO
S. GIOVANNI ADDOLORATA
ROMA



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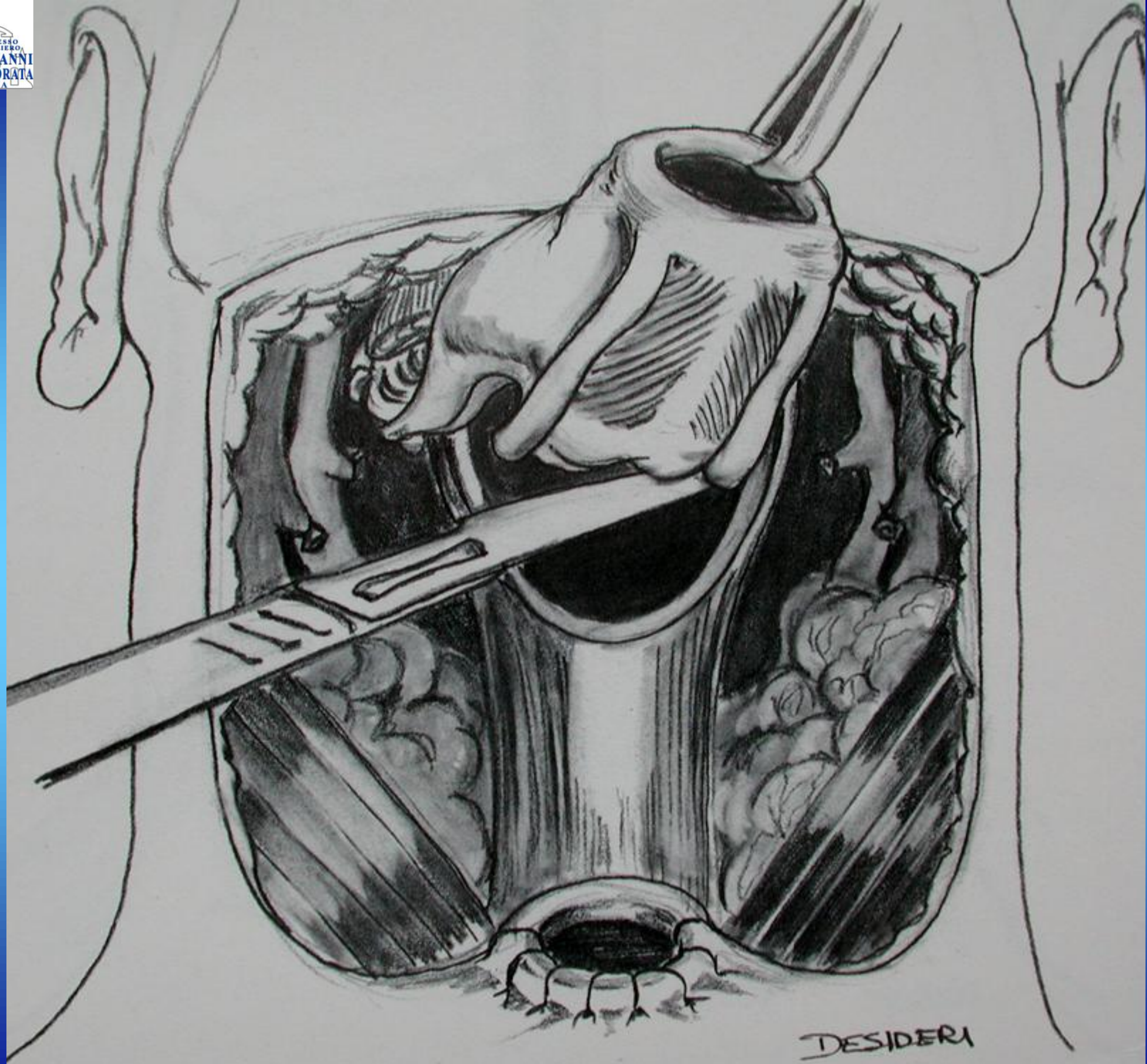
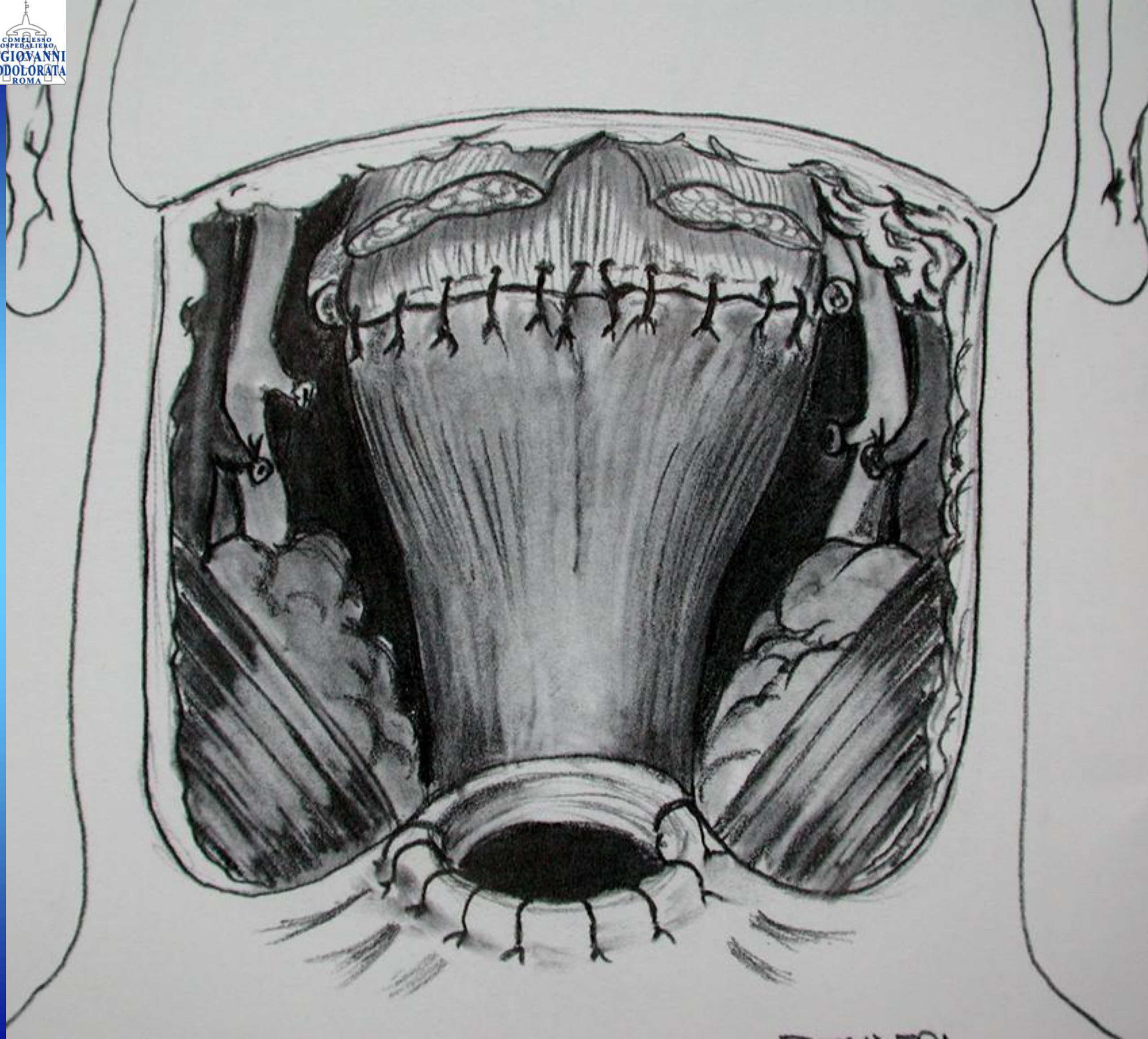
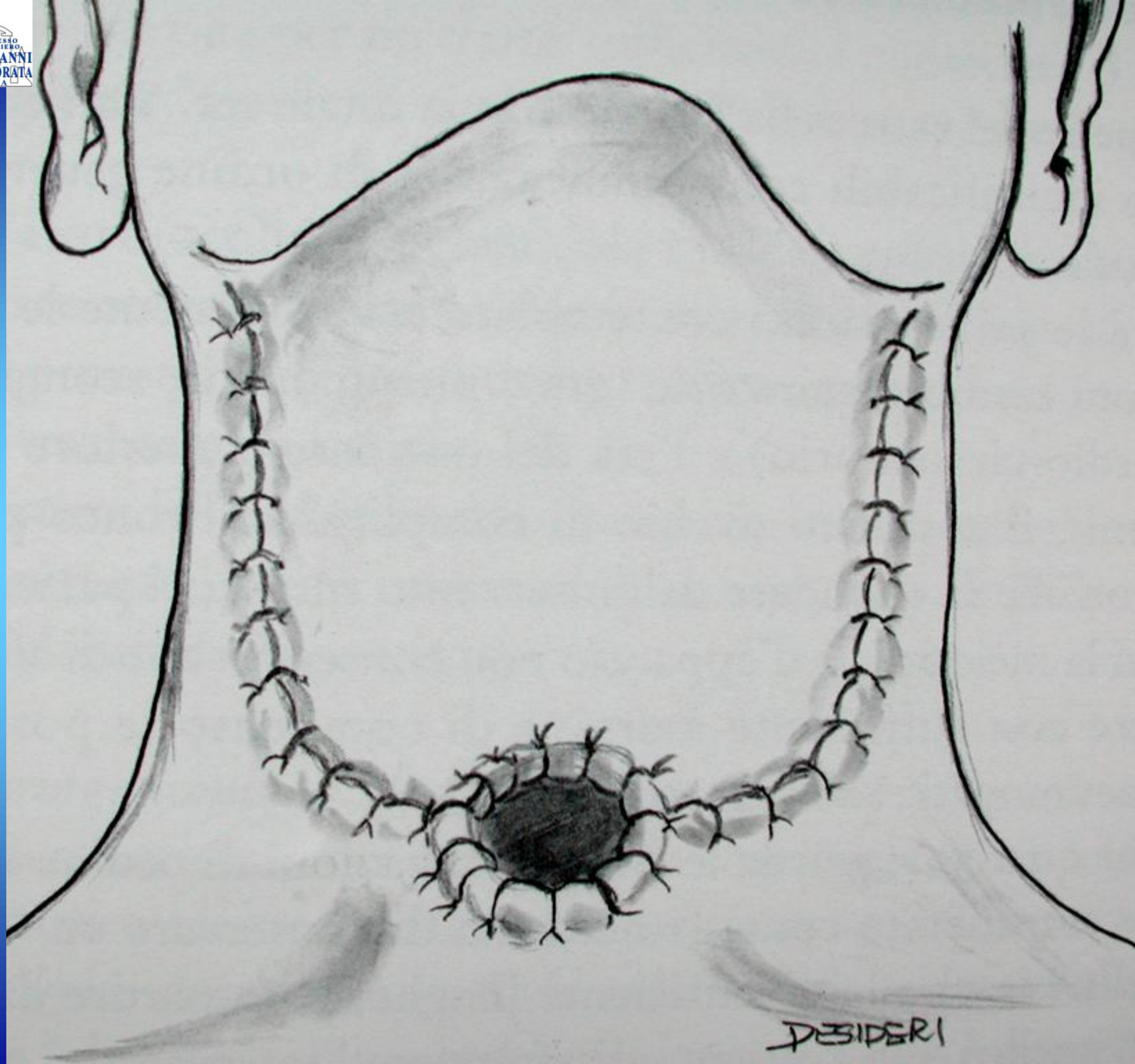


COMPLESSO OSPEDALIERO
S. GIOVANNI ADDOLORATA
ROMA



COMPLESSO OSPEDALIERO
S. GIOVANNI ADDOLORATA
ROMA



Lairngectomia totale

INDICAZIONI:

IERI

Lesioni laringee estese a più sottosedi

Estesa infiltrazione dello scheletro cartilagineo

Esteriorizzazione cutanea

Tumori sottoglottici

Lairngectomia totale

INDICAZIONI:

OGGI

Les

PROTOCOLLI DI CONSERVAZIONE D'ORGANO

Est

LARINGECTOMIE SOTTOCRICOIDEE (TRACHEOIOIDOPESSIA)

lagineo

Est

Tum

CHIRURGIA RICOSTRUTTIVA

Lairngectomia totale

INDICAZIONI:

OGGI

Pesistenza di malattia dopo CT-RT

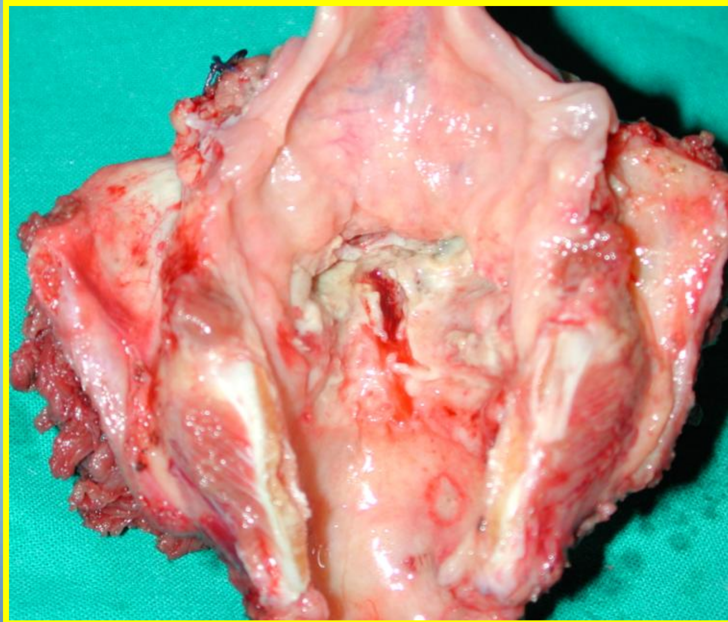
Recidiva dopo CT-RT o chir. conservativa

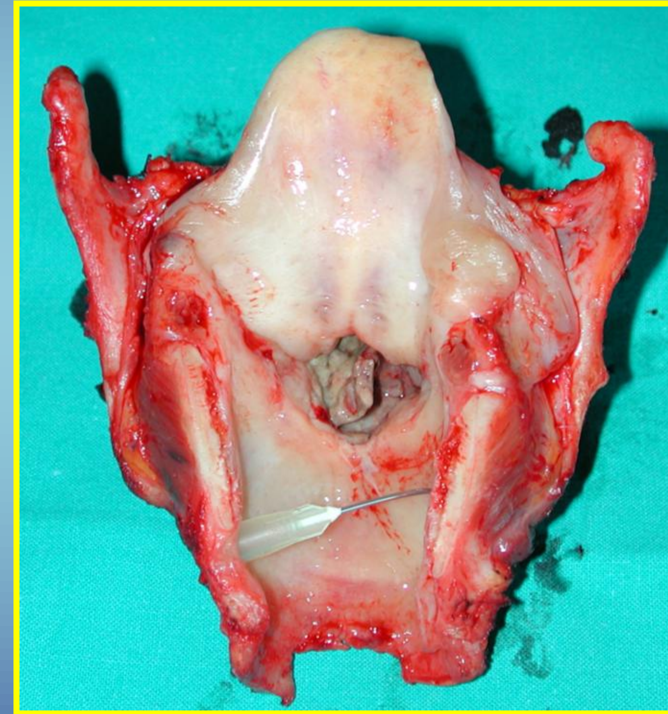
Recupero chirurgico di radionecrosi

Condizioni generali del pz. scadenti

Lesioni laringee molto estese

Alcune nostre impressioni…





COLLO NON RADIOTRATTATO

Indici clinici

- Dimensioni, fissità, cute, etc

Indici di imaging

- Rapporti con altre strutture, margini, etc

Indici citologici

- Atipie cellulari, infiltrazione, etc

Ottimale valutazione pre-operatoria della resecabilità !

COLLO RADIOTRATTATO

Indici clinici

- Dimensioni, fissità, cute, etc

  Mal valutabili per fibrosi post RT

Indici di imaging

- Rapporti con altre strutture, margini, etc

  Non affidabili per fibrosi post RT

Indici citologici

- Atipie cellulari, infiltrazione, etc

  Non affidabili per desmoplasia post-RT

Difficile valutazione pre-operatoria della resecabilità !

HISTOLOGIC CHARACTERISTICS AND TUMOR SPREAD OF RECURRENT GLOTTIC CARCINOMA: ANALYSIS ON WHOLE-ORGAN SECTIONS AND COMPARISON WITH TUMOR SPREAD OF PRIMARY GLOTTIC CARCINOMAS

Peter Zbären, MD,[1] Michel Nuyens, MD,[1] Jürgen Curschmann, MD,[2] Edouard Stauffer, MD[3]

29 carcinomi laringei recidivanti dopo RT

VS

52 carcinomi laringei “de novo”

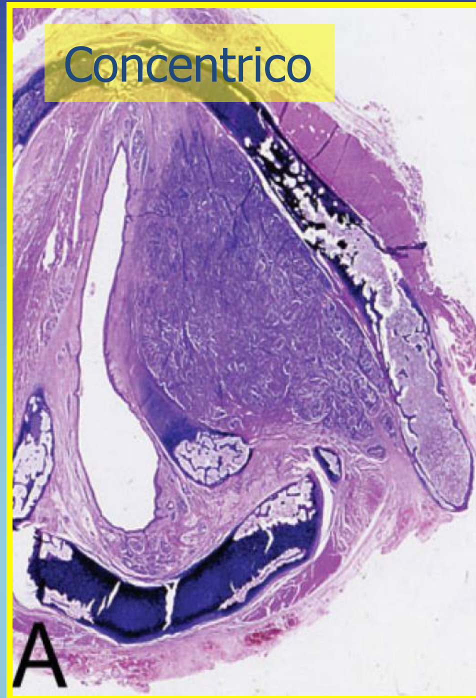
29 carcinomi laringei recidivanti dopo RT

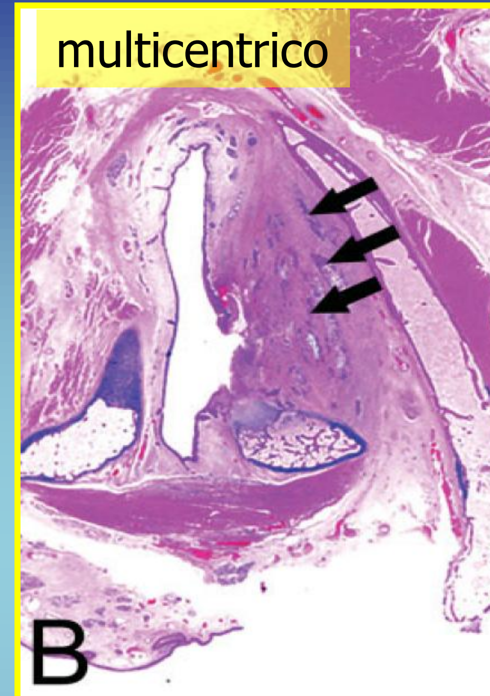
Classif.T	Clinico + imaging	Patologico
T1	**5**	**5**
T2	**6**	**3**
T3	**13**	**8**
T4	**5**	**13**

Sovrastima clinica: 10.3%

Sottostima clinica: 52 %

Pattern di crescita tumorale

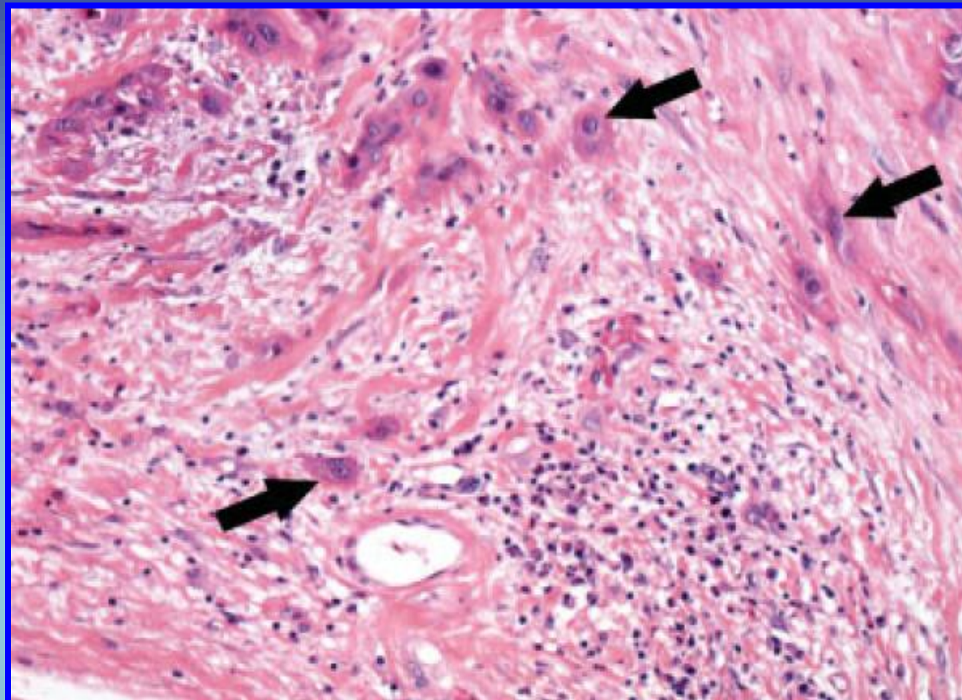




Pattern	Ca. dopo RT	Ca “de novo”
concentrico	19 %	77 %
multicentrico	81 %	23 %

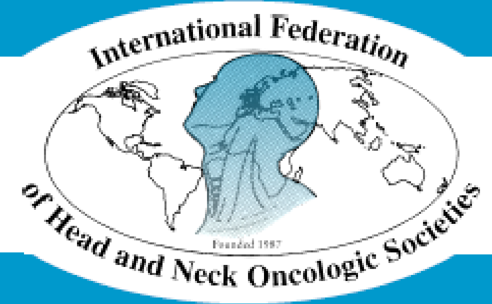
$p < 0.05$

Cellule tumorali isolate



	Ca. dopo RT	Ca "de novo"
Cell. isolate	76 %	23 %

$p < 0.05$



Laryngopharyngeal Squamous Cell Carcinoma

Jean Louis Lefebvre, MD

Milestones in larynx/hypopharynx management

Laser CO^2
SCPL

1st. TL
1st. PL
1st. RT

Larynx preservation trials
VA EORTC RTOG EORTC

1873 1878 1903 1970s 1994 1996 2003 2007

surgery
radiotherapy
laser
scanner
IRM

ASCO
1982

2008

TL = total laryngectomy, Pl = partial laryngectomy, RT = radiation therapy, SCPL = supracricoid partial laryngectomy, VA = Veterans Affairs Larynx Cancerl Study Group, EORTC = European Organization for Research and Treatment of Cancer, RTOG = Radiation Therapy Oncology Group

Evolution of Organ Preservation Strategies

- 1960's – Laryngectomy/Pharyngectomy
- 1970's – Laryngectomy alone
  Planned radiation with surgery for salvage
- 1980's – Irradiation +/- Chemotherapy (5FU, Mitomycin C)
- 1990's – VA Trial, (Neoadjuvant Chemo/Rad or Laryngectomy)
- 2000's – Adoption of Organ Preservation Approaches

1960's — 2007

100% TL — Functional Larynx? — 40% TL

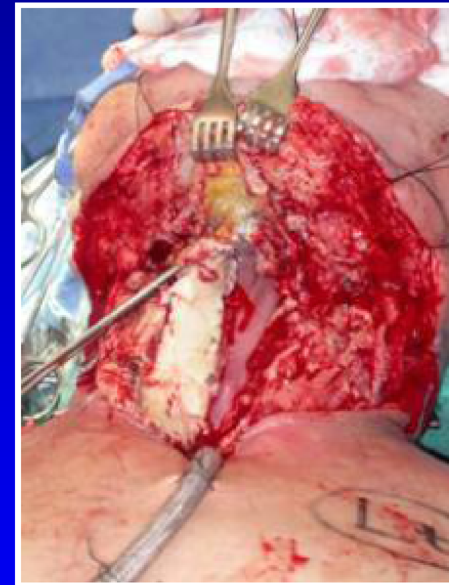
Quality of Life?

"I have seen the future and it doesn't work."
Robert Fulford

2008

What about Surgical Salvage Following Organ Preservation Strategies?

- Increasing trend over the past decade to adopt organ preservation strategies using either concomitant chemoradiation or accelerated or hyperfractionated radiotherapy.
- While these approaches have increased the likelihood of primary control in certain head and neck mucosal malignancies, when this approach fails and surgical salvage is required the sequelae of the primary treatment creates major challenges for patients and their surgeons.



International Federation of Head and Neck Oncologic Societies

2008

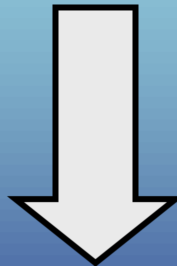
...oltre la laringectomia

Tumori del seno piriforme con coinvolgimento dellla parete faringea posteriore

Carcinomi retrocricoidei

Carcinomi ipofaringei con coinvolgimento dell'esofago cervicale

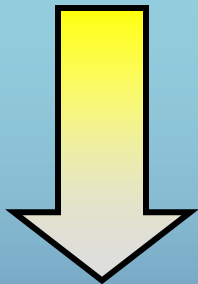
Recidive "a colata" dopo chirurgia parziale delle VADS



Faringolaringectomia totale +/- esofagectomia

Tumori faringo-laringo-esofagei

Faringo-laringo-esofagectomia



Come ricostruire ???

Ricostruzione esofagea dopo faringo-laringo-esofagectomia (FLE)

Metodica ricostruttiva ideale:

- Procedura "one-stage"
- Bassa morbidità e mortalita post-op.
- Buona riabilitazione della deglutizione
- Rapida dimissione dall'ospedale

Ricostruzione esofagea dopo faringo-laringo-esofagectomia (FLE)

Possibili opzioni:

- Lembo miocutaneo di gran pettorale
- Lembo libero radiale
- Lembo anterolaterale di coscia
- Lembo di digiuno

NECESSITA' DI UN MONCONE ESOFAGEO !

- Pull up gastrico
- Interposizione colon

Pull up gastrico “Classico”

Procedura molto aggressiva

Manipolazione chirurgica di 3 cavità viscerali

Complicanze post-operatorie fino al 64% !

VS

Complicanze post-op lembi liberi: 22 %

Chu PY., et al. Head Neck 2005; 27: 901-8

Mortalità intra-operatoria: 10 %

Spiro RH., et al. Am J Surg 1991; 162: 348-52

Mortalità intra e post-operatoria: 33.3 % !!!

Liorente Penda JL., et al. Acta Otorrinolaringol Esp 2006; 57: 242-6.

DePaula AL., 2006

120 pull up laparoscopici per pazienti con carcinoma esofageo

Polmonite post-operatoria: 10 %

Fistola salivare post-operatoria: 10 %

Normale deglutizione: 89.2 %

Mortalità perioperatoria: 5.9 %

De Paula AL., et al. Otolaryngol Head Neck Surg 2006; 135; 710-3

NOSTRA ESPERIENZA

2002-2009

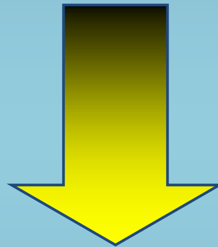
U.O.C. Otorinolaringoiatria e
Az. Osp. San Giovanni – Addolorata
Roma

&

U.O.C. Chirurgia
Az. Osp. F. Veneziane, Isernia

Ottobre 2002 – Agosto 2009

23 pz con carcinoma faringo-laringo-esofageo



Faringo-laringo-esofagectomia con pull up gastrico laparoscopico (FLE-PGL)

FLE-PGL: 23 pazienti

TNM	N0	N1	N2
T1			
T2			
T3			5
T4a	3	10	5

AICC Stage	
I	0
II	0
III	0
IVa	23

COMPLESSO OSPEDALIERO S. GIOVANNI ADDOLORATA ROMA

Ottobre 2002 – Agosto 2009

Overall survival

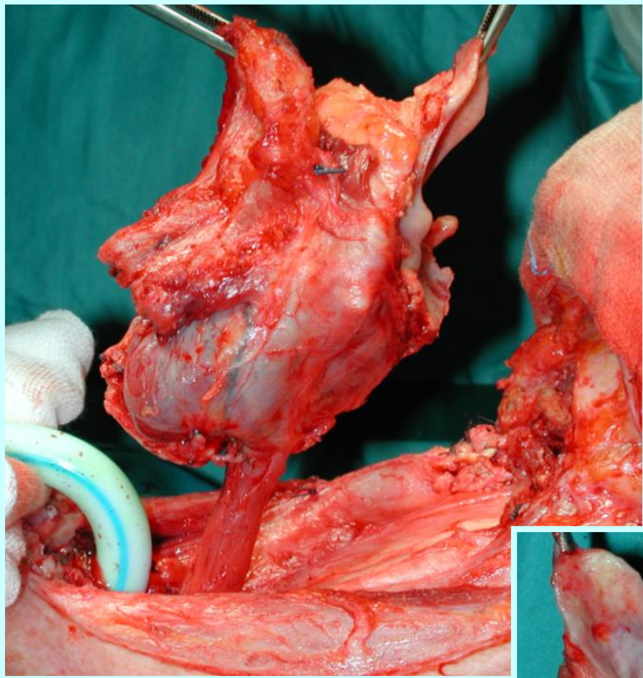
100
90
80
70
60
50
40
30
20
10
0

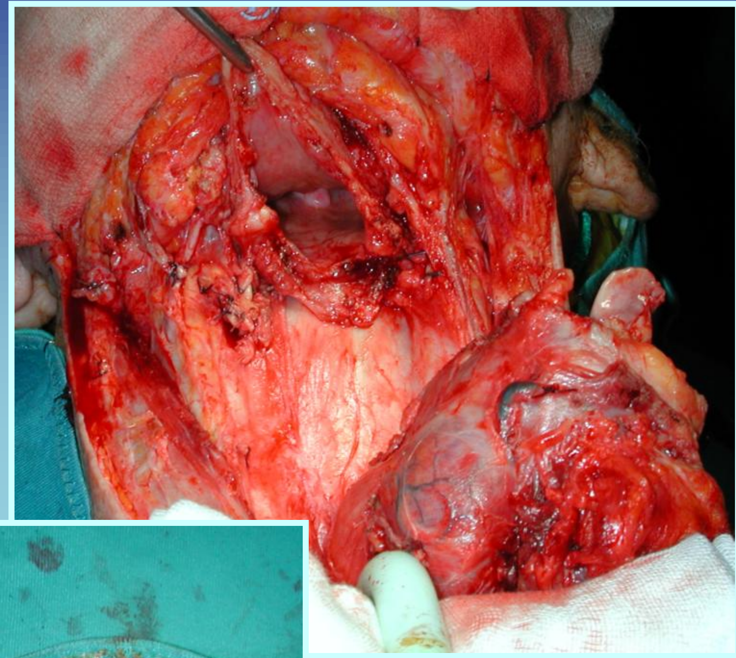
1 year
5 years

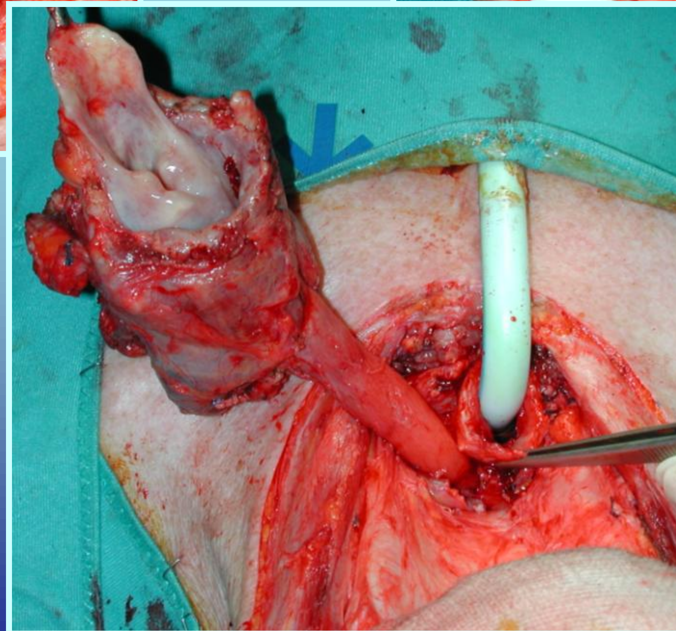
Stage I
Stage II
Stage III
Stage IV

COMPLESSO OSPEDALIERO S. GIOVANNI ADDOLORATA ROMA

Faringo-laringo-esofagectomia

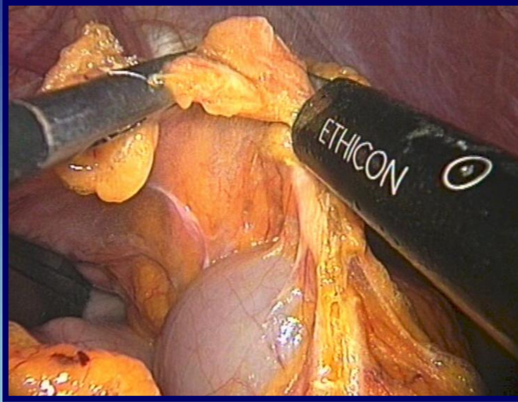


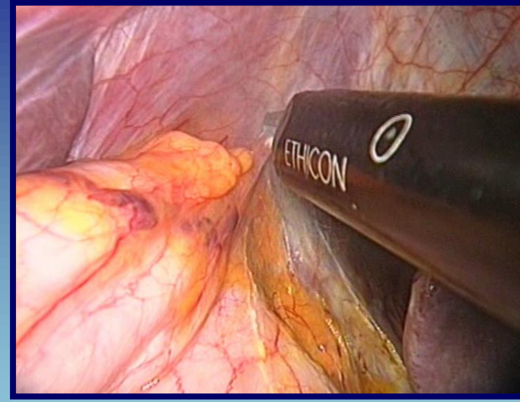


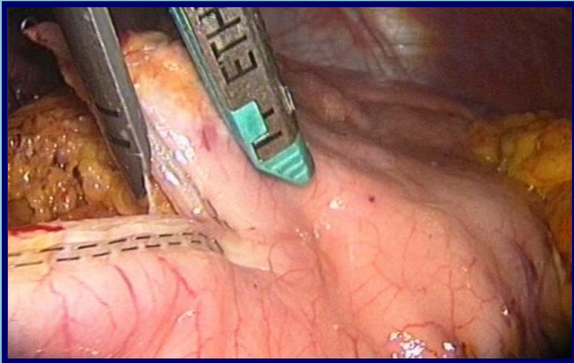


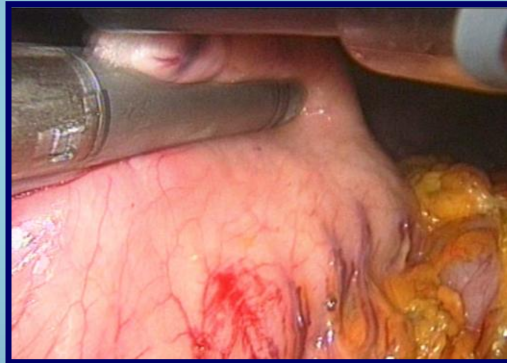
COMPLESSO OSPEDALIERO
S. GIOVANNI ADDOLORATA
ROMA

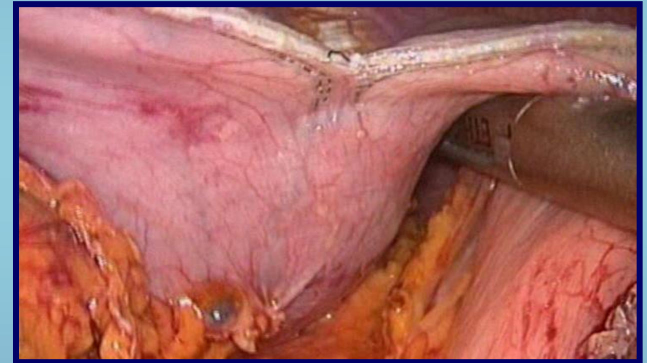
pull up gastrico laparoscopico

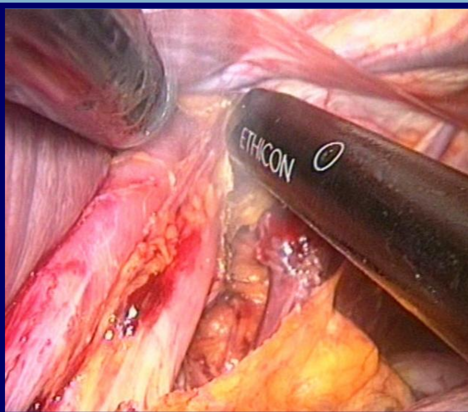


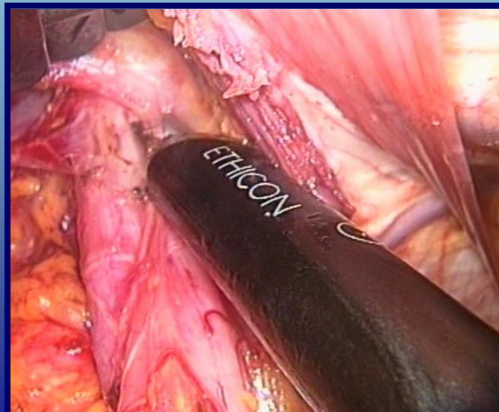


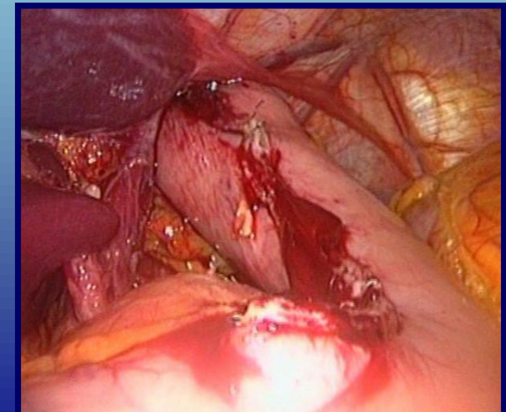


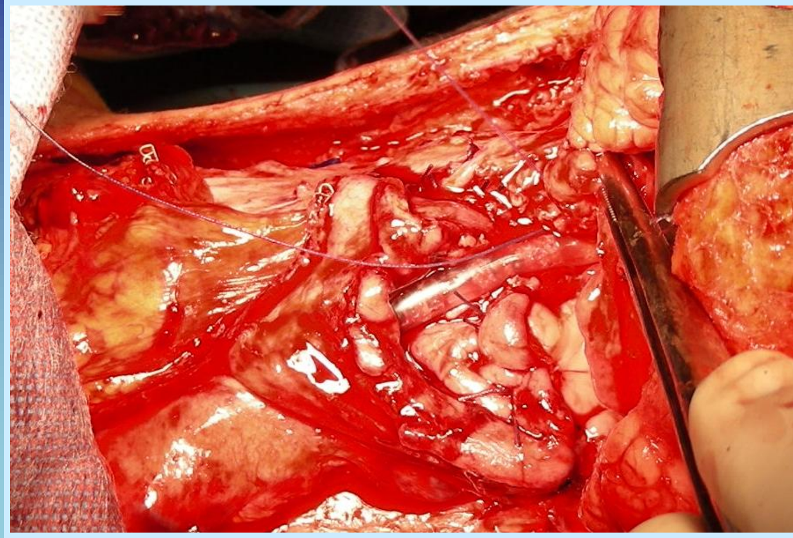


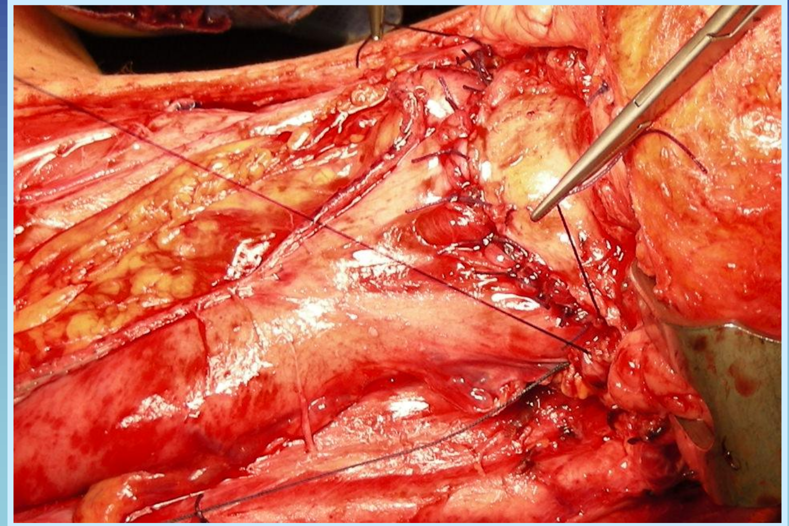


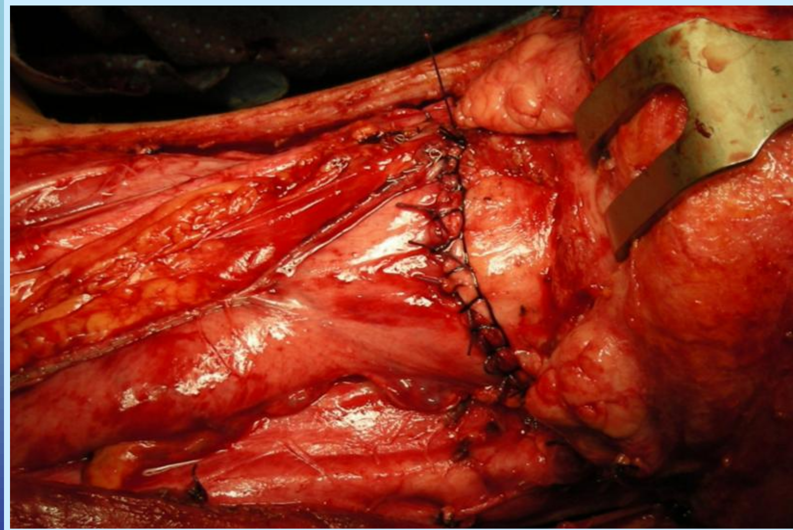


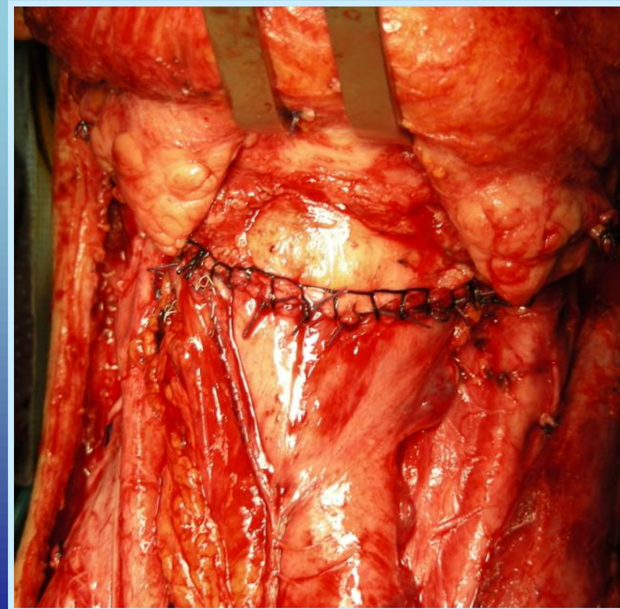


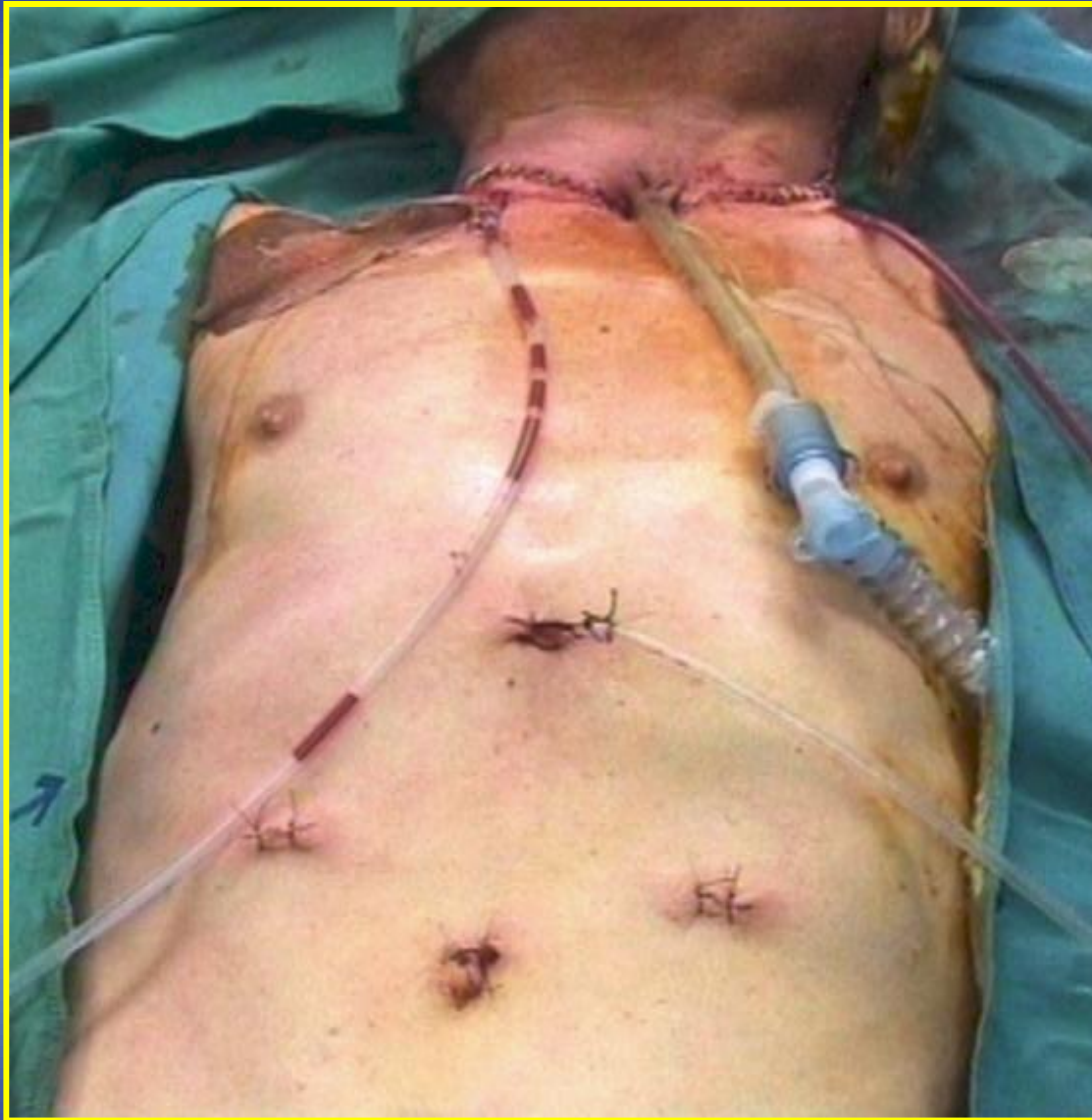












S. GIOVANNI ADDOLORATA ROMA

Faringo-laringo-esofagectomia con pull up gastrico laparoscopico

Mortalità intra-operatoria:	0 %
Mortalità post-operatoria:	6.2 %
Complicanze maggiori:	12.5 %
Complicanze minori:	12.5 %

Ottobre 2002 – Agosto 2009

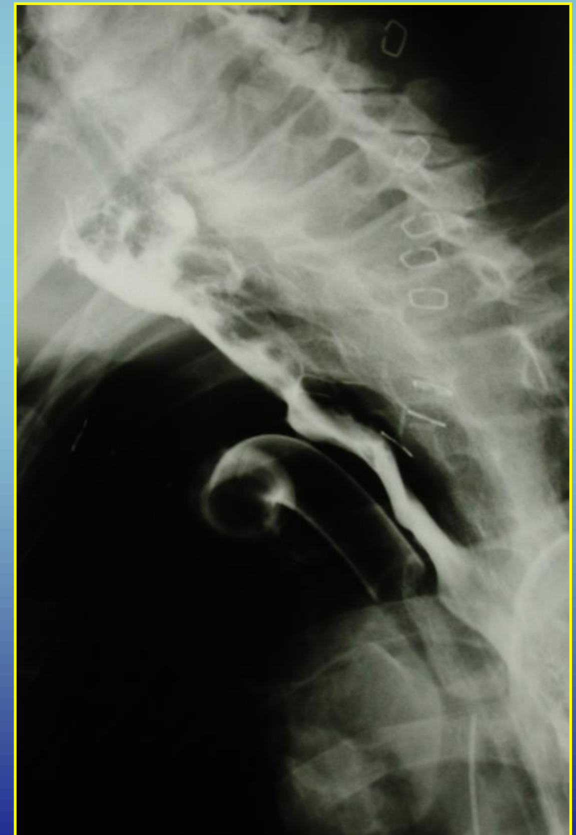
23 pz sottoposti a Faringo-laringo-esofagectomia con pull up gastrico laparoscopico

Canalizzazione alvo (media): 72 ore

Alimentazione per os (media): 14 gg

Ospedalizzazione (media): 18 gg

Normale deglutizione: 93.3 %



Faringo-laringo-esofagectomia con pull up gastrico laparoscopico

Procedura "one-stage"

Bassa morbidità e mortalita post-op

Buona riabilitazione della deglutizione

Rapida dimissione dall'ospedale

Metodica ricostruttiva ideale !!

Damiani V., Camaioni A., Huscher CGS., Fazi M. Pharyngo-laryngo-esophagectomy with laparoscopic pull up: our experience. Eur Surg Res 2008; 41: 127-8

COMPLESSO OSPEDALIERO S. GIOVANNI ADDOLORATA ROMA

Grazie !