



# SNORING & OSAHS SURGERY

*International Workshop*



**Oropharyngeal Surgery**  
*< 15 min*

# Filippo Montevercchi M.D.

Department of Special Surgery  
Head & Neck Surgery,  
Oral Surgery Unit  
(Head: C. Vicini)

G.B. Morgagni – L. Pierantoni  
Hospital  
ASL of Forlì  
ITALY

University of Pavia  
School of Medicine  
ENT Clinic  
Ronchopathy Surgery Course

University of Parma  
School of Medicine  
Maxillo-Facial Clinic  
SDB Surgery Course

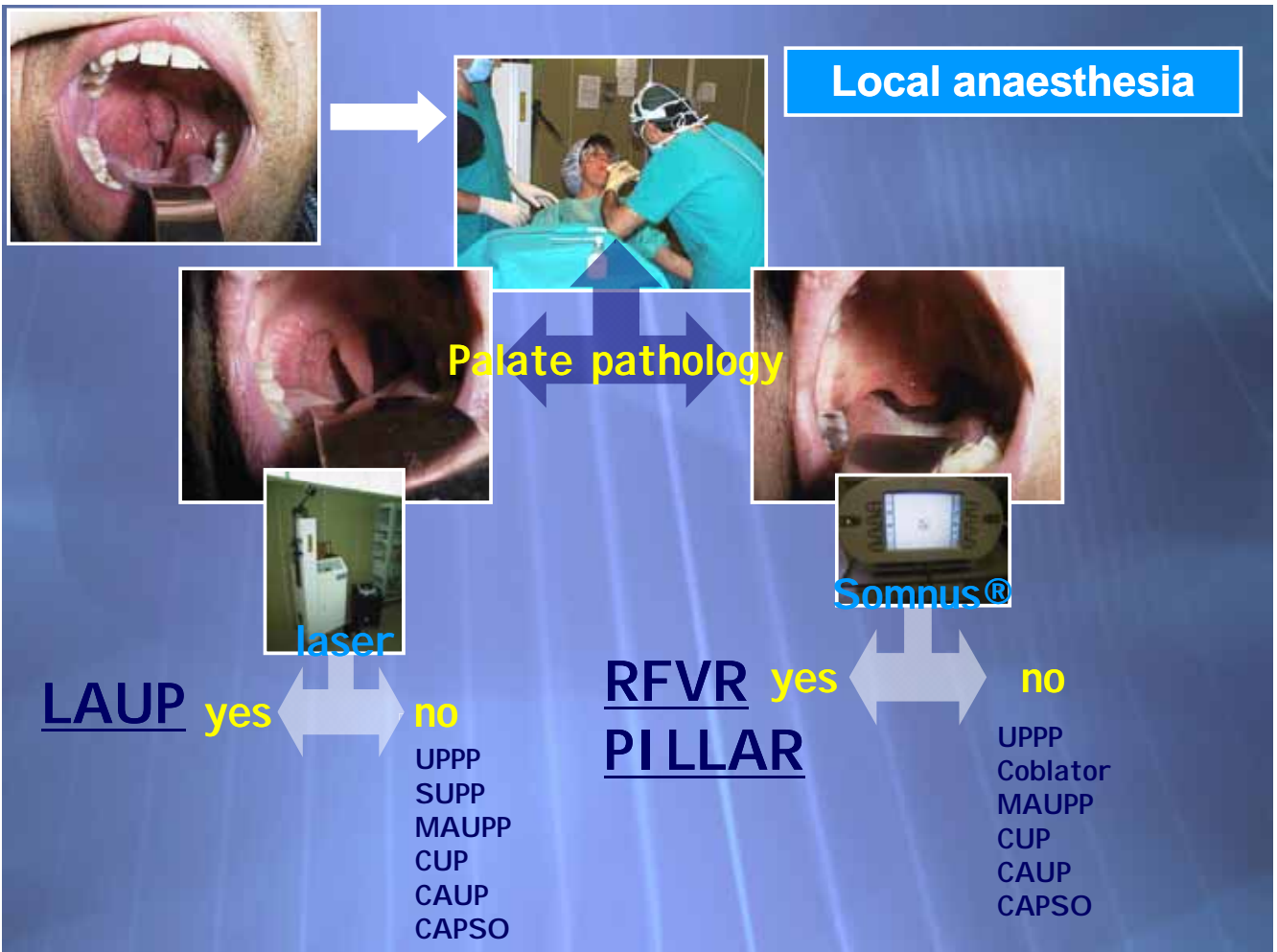
AIMS Board  
&  
ENT-Maxillo-Facial  
Joint Commission



## ANALYSIS OF PALATAL ANATOMY

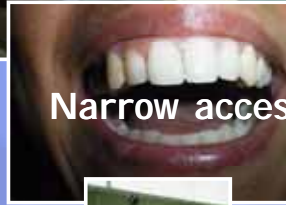
- ✦ uvula (shape and dimension)
- ✦ free edge, pharyngeal pillars, tonsils
- ✦ tongue position
- ✦ palatal thickness
- ✦ shape of the posterior space (flat vs. deep)







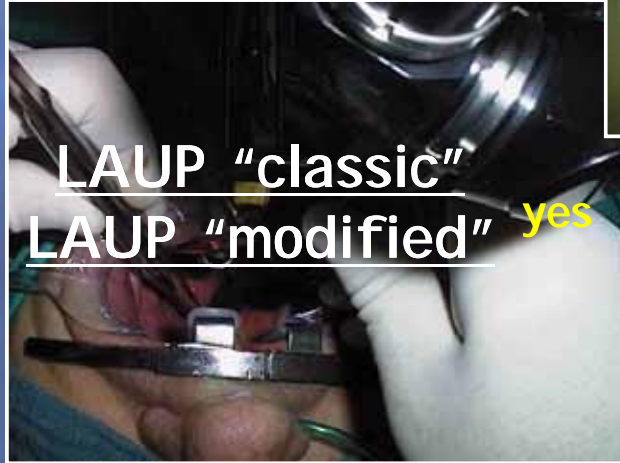
**General anaesthesia  
(narrow access)**



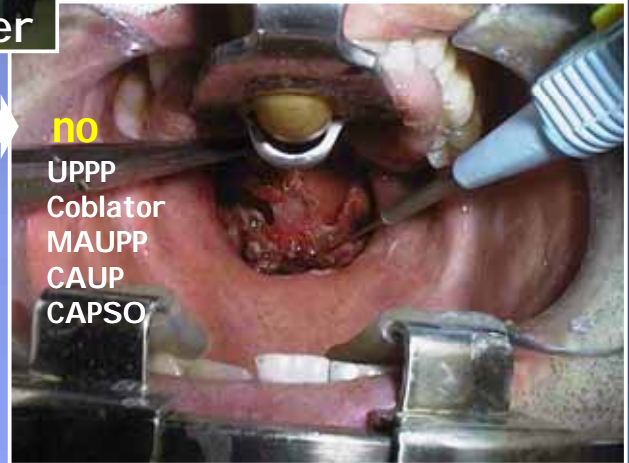
Narrow access



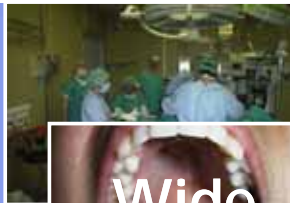
laser



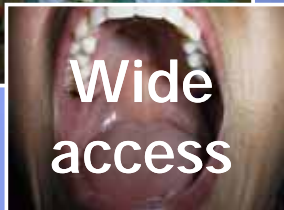
LAUP "classic"  
LAUP "modified" **yes**



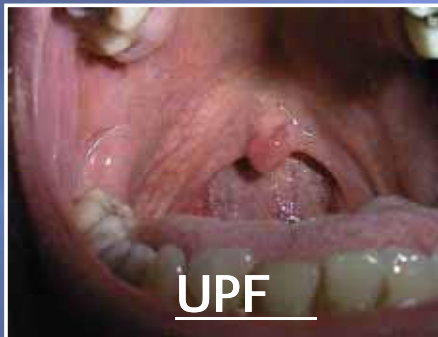
**no**  
UPPP  
Coblator  
MAUPP  
CAUP  
CAPSO



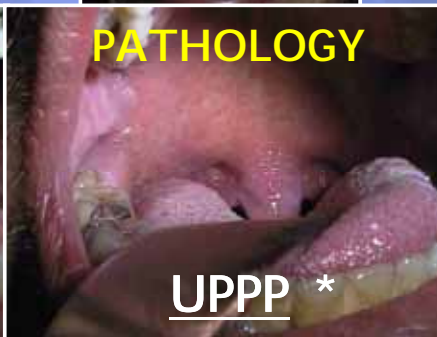
**General Anaesthesia  
(wide access)**



Wide access



UPF



**PATHOLOGY**

UPPP \*



T Sectomy \*



UPPP + T Sectomy



# Modified LAUP

Kamami: Ambulatory treatment of Sleep Apnea Syndrome with CO2 laser (LAUP) (*JFORL & J Cl Laser Med & Surg, 1994*)



7 days post-op

6 months post-op



→medialization posterior pillars???

uvula sutures at the end of surgery

# UPF

Powell, Riley, Guilleminault, Troell (*Sleep, 1996*)



9 months post-op



## UPF : *CRITICAL OBSERVATIONS*

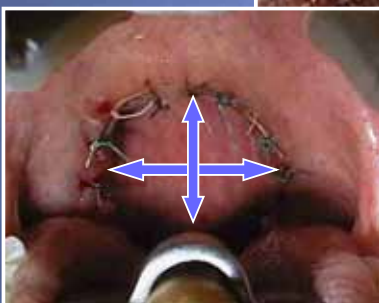


- limited indications according to the anatomy of the oropharynx
- surgery requires more time
- Results *not superior* to UPPP in terms of:
  - post-operative pain
  - reduction of snoring/OSAS
  - long term results



## UPPP

FUJITA S, CONWAY W, ZORICK F, ROTH T:  
Surgical correction of anatomic abnormalities of obstructive sleep apnea syndrome:  
UvuloPalatoPharyngoPlasty.  
Otolaryngol Head Neck Surgery 89: 923-934, 1981



# UPPP

- ✦ Analgesic intraoperative treatment: **spraying of xylocaine 10%**
- ✦ Marking of the **"Transition point"** (transition between soft and hard palate)
- ✦ Marking of the **"Metric point"** → the new free edge of the palate must be from 2 to 2,5 cm below the transition point:
  - ✦ 2.0 cm if the posterior space is narrow
  - ✦ 2.5 cm if the posterior space is wide

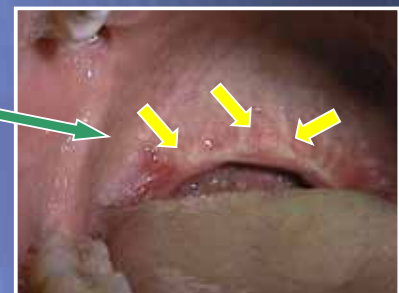


# UPPP

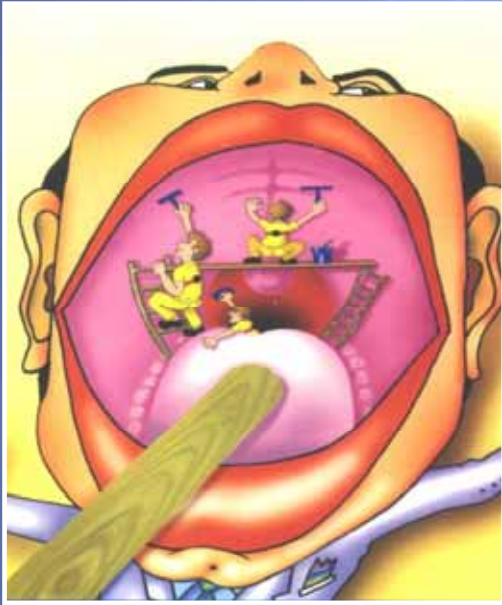
## Marking of the resection lines

These resection lines will be planned according to the palatal characteristics, keeping in mind that the goal is:

- ✦ to overturn the largest flap of the posterior palatal mucosa onto the anterior palatal wall (no scar on the free edge)
- ✦ to avoid excessive tractions of mucosal flap to prevent both dehiscence of the sutures and inappropriate mucosal folds of the posterior pharyngeal wall
- ✦ attention: avoid planning excessive mucosal dissection → there's no remedy for this kind of error



# PALATAL SURGERY in OSAS patients

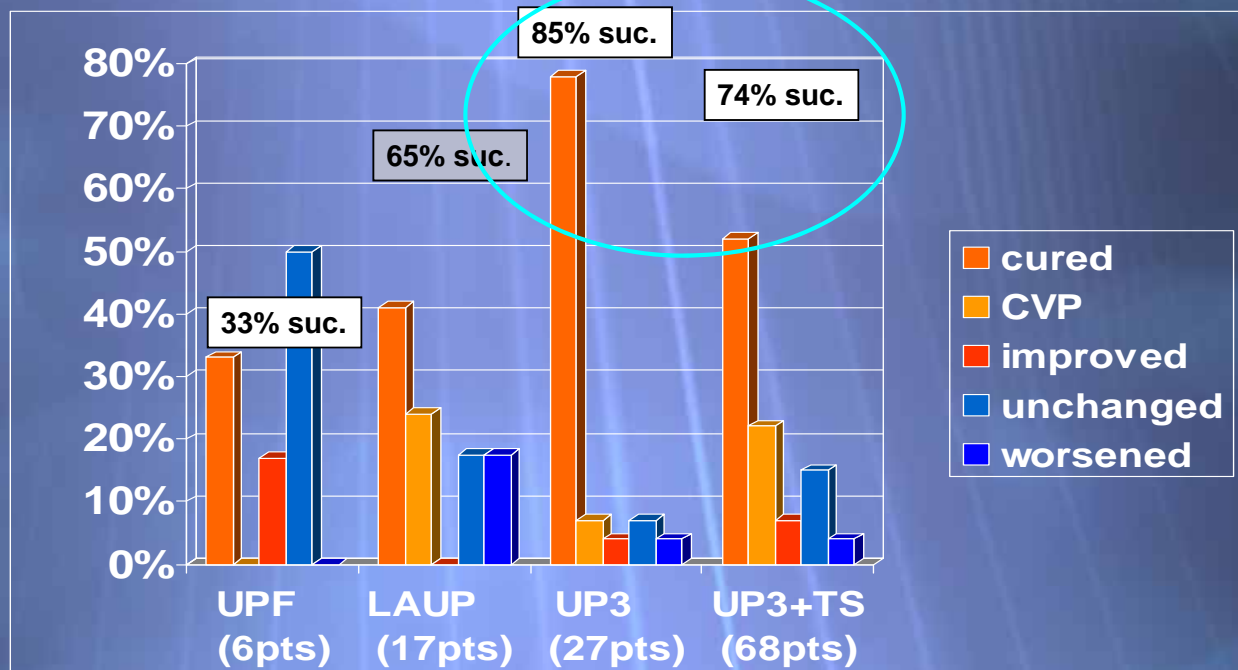


our Outcomes

## Palatal surgery

(palatal alone or nasal+palatal surg. = 118 pts)

### AHI outcomes

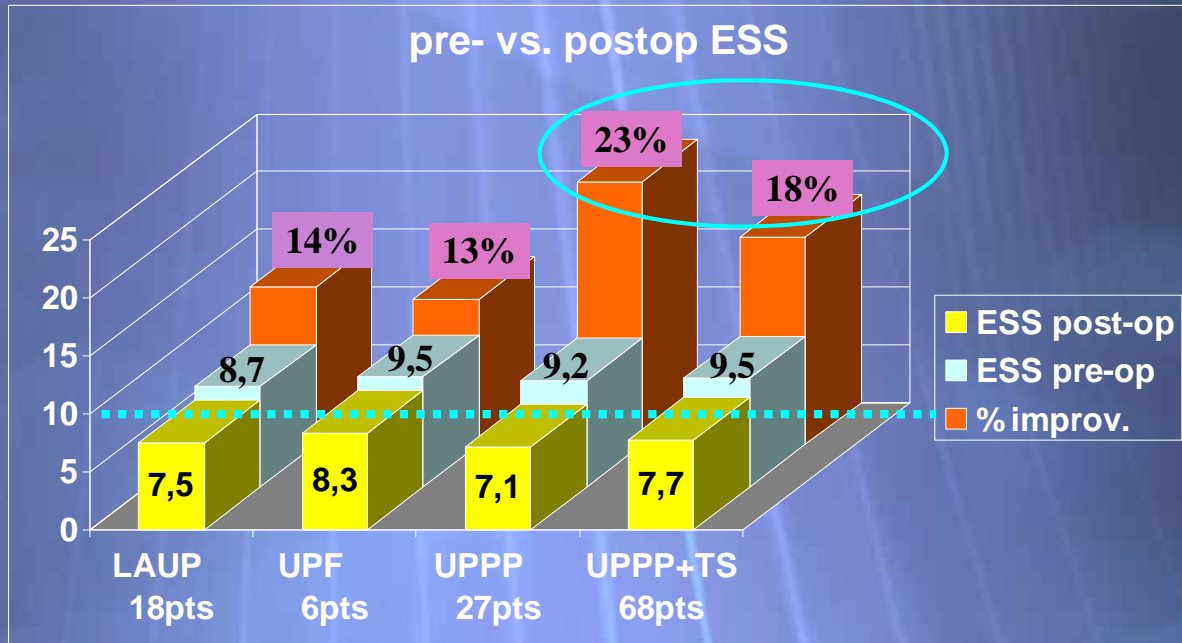




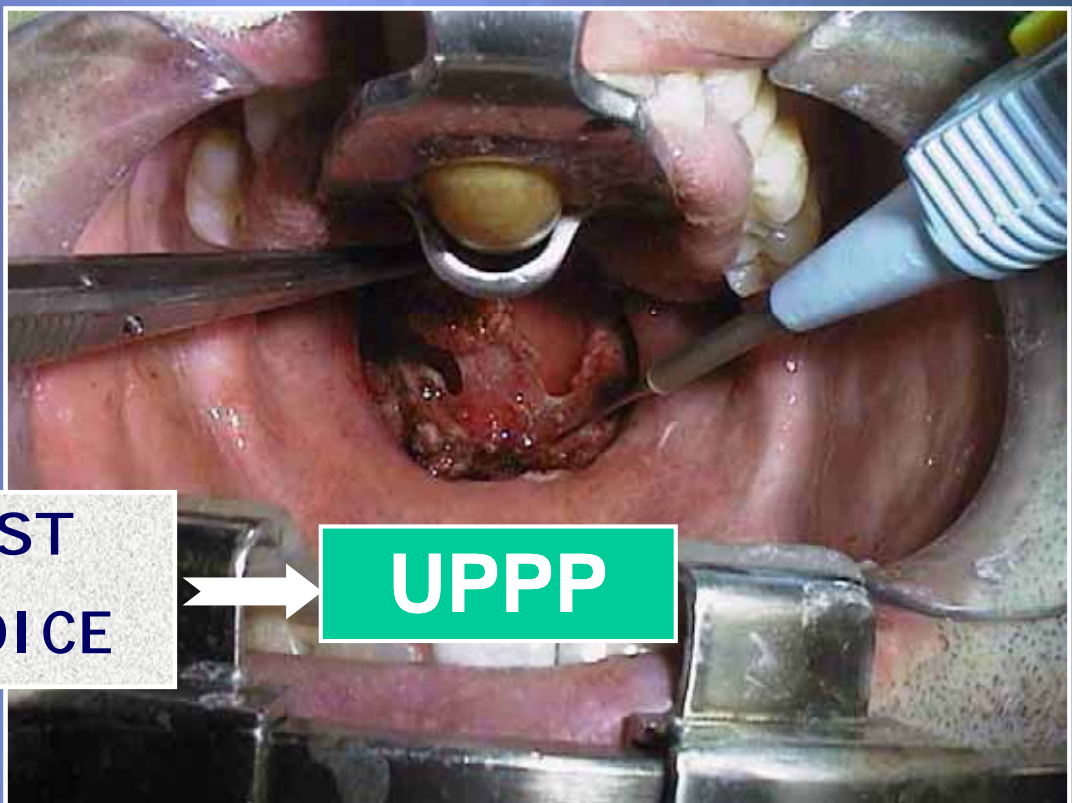
# Palatal surgery

(palatal alone or nasal+palatal surg. = 118 pts)

## ESS outcomes



## 1<sup>th</sup> Conclusion



BEST  
CHOICE

UPPP

## 2<sup>th</sup> Conclusion

Gold  
standard

↓

**UPPP + Tonsillectomy**



## The evolution of our surgical procedures over the years

