

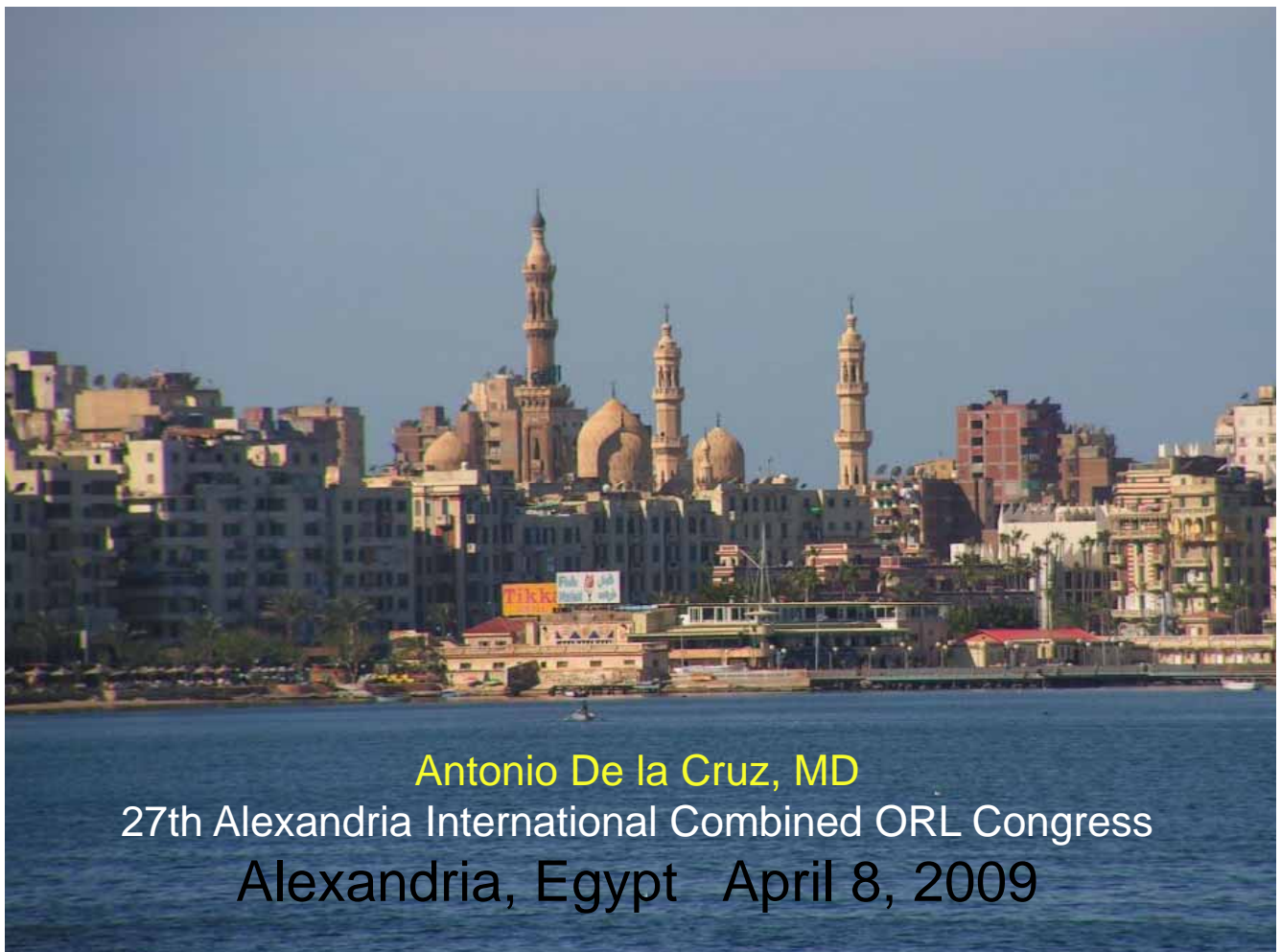
BAHA SURGERY COMPLICATIONS

27th Alexandria International Combined ORL Congress

Alexandria, Egypt April 9, 2009



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House Ear Institute Los Angeles, California



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27th Alexandria International Combined ORL Congress
Alexandria, Egypt April 8, 2009

BAHA®

Direct Bone Conduction

- Works independently of ear canal and middle ear
- Direct transmission gives clear sound
- Preoperative testing possible
- High wearing comfort
- Safe and simple surgery

BAHA®

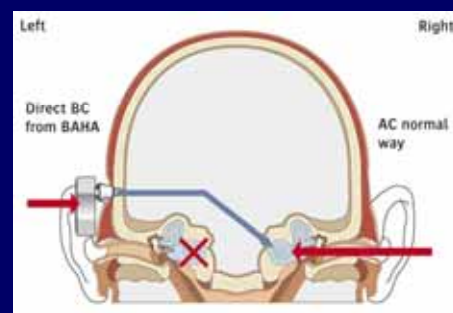
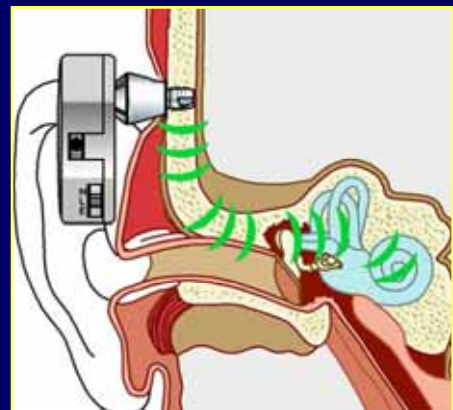
1977 (Tjellstrom et al., 1981)
Göteborg, Suecia



BAHA[®] Clinical Indications

- Conductive hearing loss
- Mixed hearing loss
- In patients who are unable to use standard air-conduction aid and cannot or decline to be helped by reconstructive ear surgery

Unilateral sensorineural hearing loss as a CROS Hearing Aid



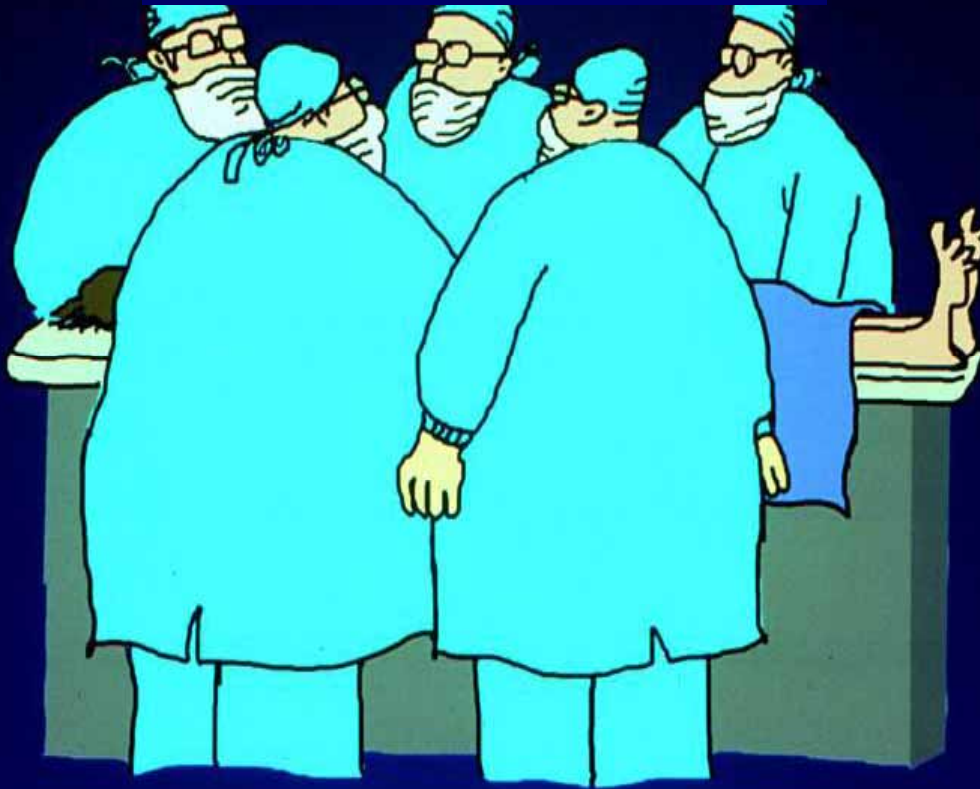
BAHA® Clinical Indications

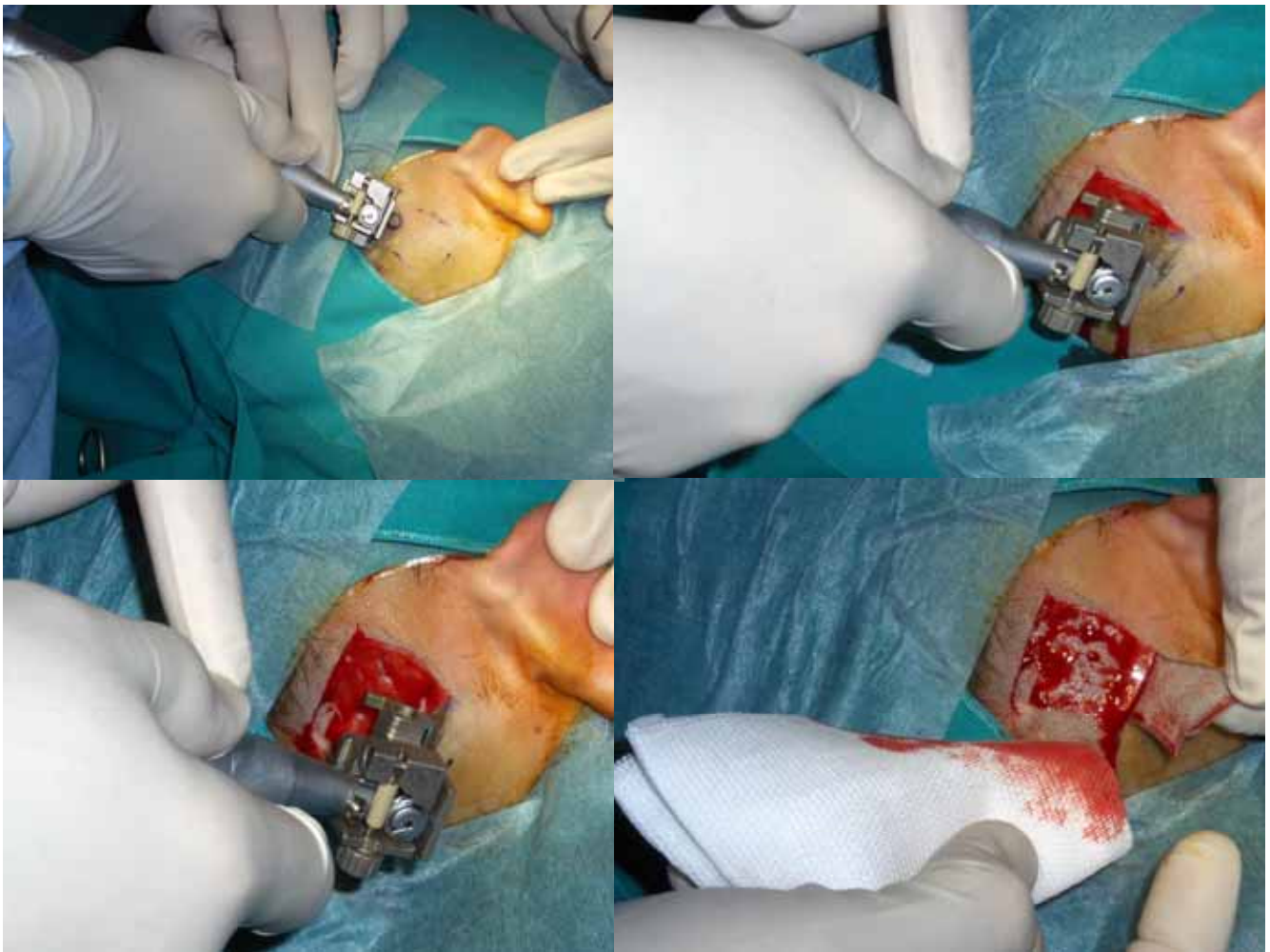
- Acoustic neuroma
- Unilateral sudden hearing loss
- Inoperable atresias EAC
- Chronic external otitis
- Tumors EAC and middle ear

BAHA® Clinical Indications

- Recurrent stenosis EAC
- Inoperable conductive HL
- Conductive HL in only hearing ear
- Large mastoidectomy cavities -> feedback

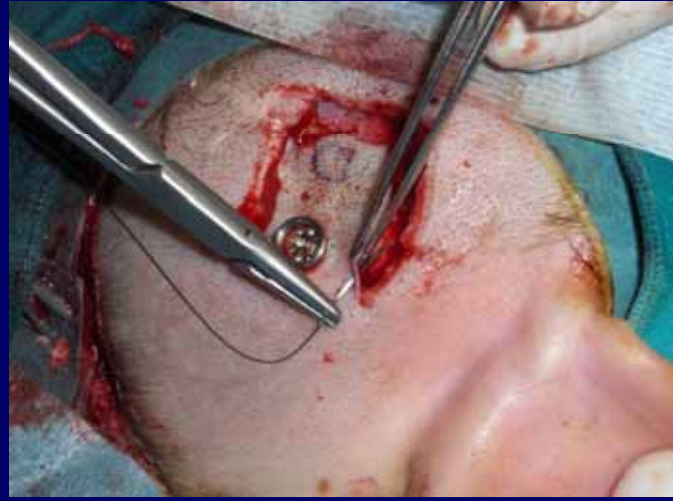
SURGERY





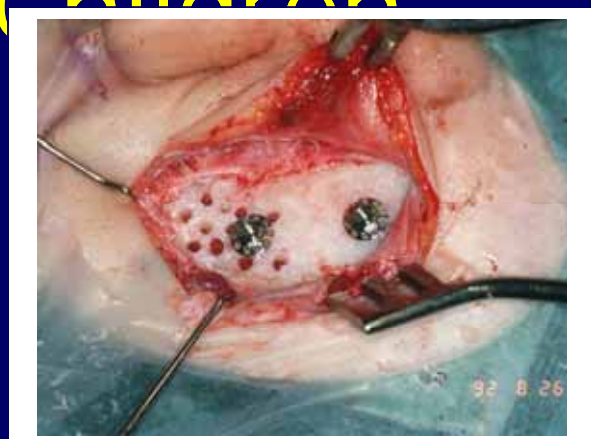
Surgical Procedure





BAHA in Children

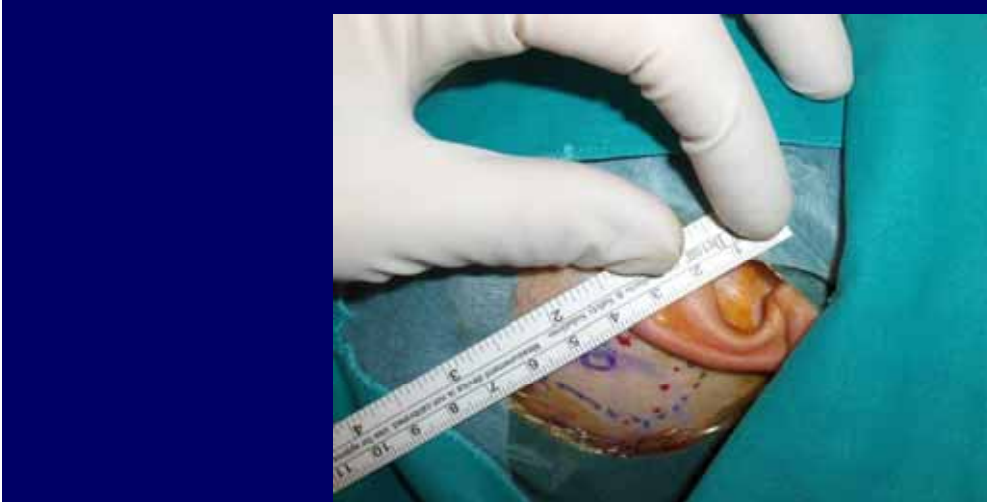
- Minimum 2.5 of bone
- 3-mm fixture
- Second fixture (sleeper)
- 3 to 6 months waiting period between stages (range up to 15 mo in </5y)
- Fitting 6 to 8 weeks after stage 2



DELAYED HEALING



- Hair loss
- Bone exposure
- Without infection





BAHA:

COMPLICATIONS

BAHA: SURGICAL COMPLICATIONS

- **Intraoperative**
 - Sigmoid Sinus Perforation
 - Insufficient thickness of temporal squama
 - CSF leak
- **Postoperatorias**
 - Soft tissue infections
 - Flap Necrosis
 - Oseointegration failure
 - Meningitis, IC abcess



Complications in 150 patients implanted with a BAHA

Complications	Number (%)
Skin overgrowing abutment	11 (7.4)
Implant extrusion	5 (3.4)
Wound infection	2 (1.3)
Flap necrosis	1 (0.7)

House J, Kutz W, Otol Neurotol 2007

Complications Skin overgrowing the abutment

- 11 patients (7.4%)
- 3 to 24 months after surgery (mean = 12 months)
- Possible inciting factors
 - ❖ Low placement
 - ❖ Not wearing speech processor
 - ❖ Allergy to titanium?



House J, Kutz W, Otol Neurotol 2007

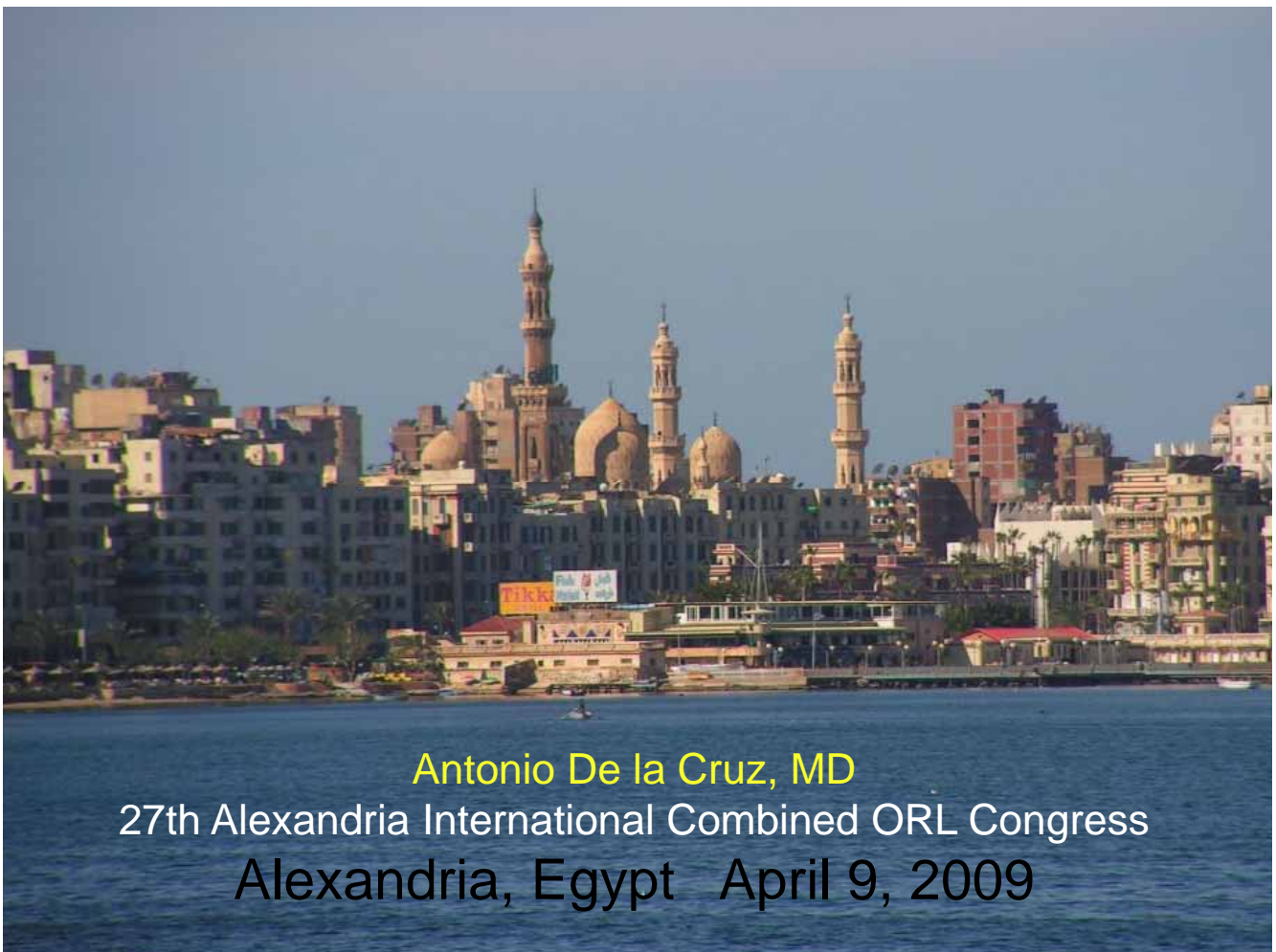


House Ear Institute

Implant Complications

(6-15%)

- Regular hygiene
- Delayed healing
- Skin infection/over-growth
- Tamovate® Ung. 0.05 % TID
- Post-op use of healing cap
- Osteointegration failure
- Traumatic fixture loss



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