Ipoacusia improvvisa neurosensoriale: epidemiologia, clinica e diagnosi differenziale

- **Francesco Fiorino**

U.O.C. di Otorinolaringoiatria

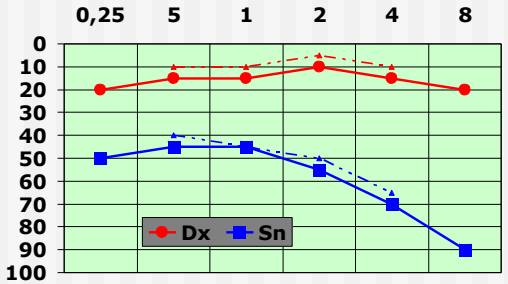
Ospedale *Mater Salutis* –Legnago (VR)
AULSS9 - Scaligera

Ipoacusia neurosensoriale improvvisa (INSI)

"Sudden sensorineural hearing loss still is an incomprehensible phenomenon for otologists"

(Koç & Sanisoğlu,
J Otolaryngol, 2003)

INSI - Definizione



- Ipoacusia a rapida progressione (entro 72 ore)
- Perdita uditiva ≥ 30 dB su 3 frequenze contigue
- Non coinvolgimento di altri nervi cranici
- Idiopatica (85-90%)
- Secondaria (10-15%)

INSI

- Incidenza annuale: 5 -20/100.000 (probabilmente sottostimata: casi a rapido decorso favorevole non registrati)

INSI

- Distribuzione m/f sovrapponibile
- Distribuzione dx/sn sovrapponibile
- Età

✓ affetti tutti i gruppi di età

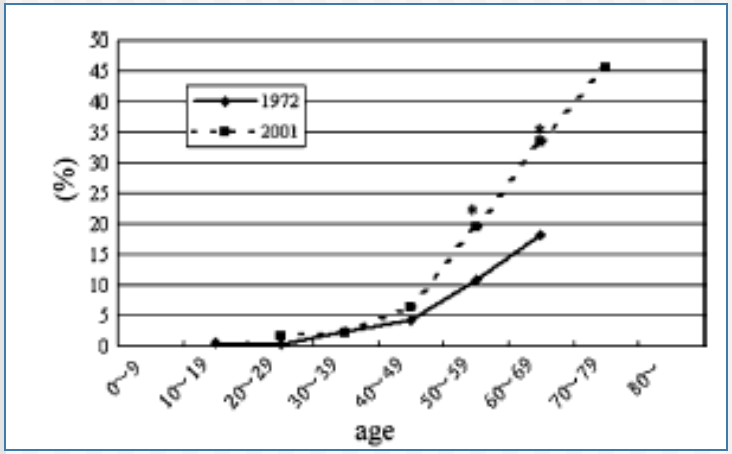
✓ picco di prevalenza:VI decade

Thirty-year trends in sudden deafness from four nationwide epidemiological surveys in Japan

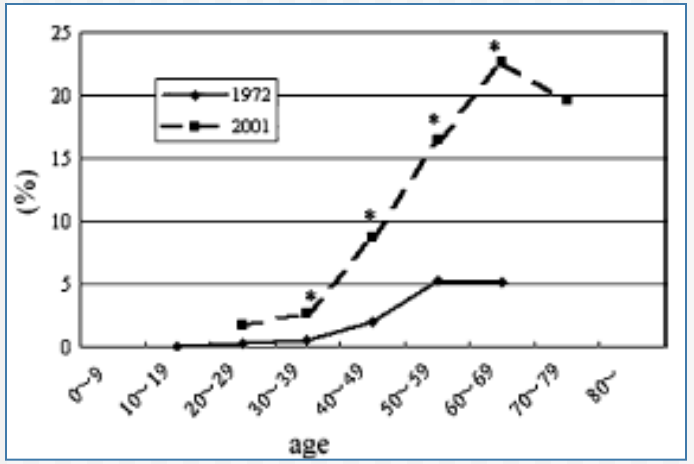
Acta Oto-Laryngologica, 2007; 127: 1259–1265

MASAAKI TERANISHI[1], NAOMI KATAYAMA[1,2], YASUE UCHIDA[3], MITSUO TOMINAGA[4] & TSUTOMU NAKASHIMA[1]

- 4 studi epidemiologici nazionali (1972-1987-1993-2001)



Pz. con ipertensione



Pz. con diabete

Ipertensione e diabete sono associati alla INSI negli anziani

Bilateral versus unilateral sudden sensorineural hearing loss

Jeong-Hoon Oh, MD, Keehyun Park, MD, PhD, Seung Joo Lee, MD, You Ree Shin, MD, PhD, and Yun-Hoon Choung, DDS, MD, PhD,

Otolaryngology–Head and Neck Surgery (2007) 136, 87-91

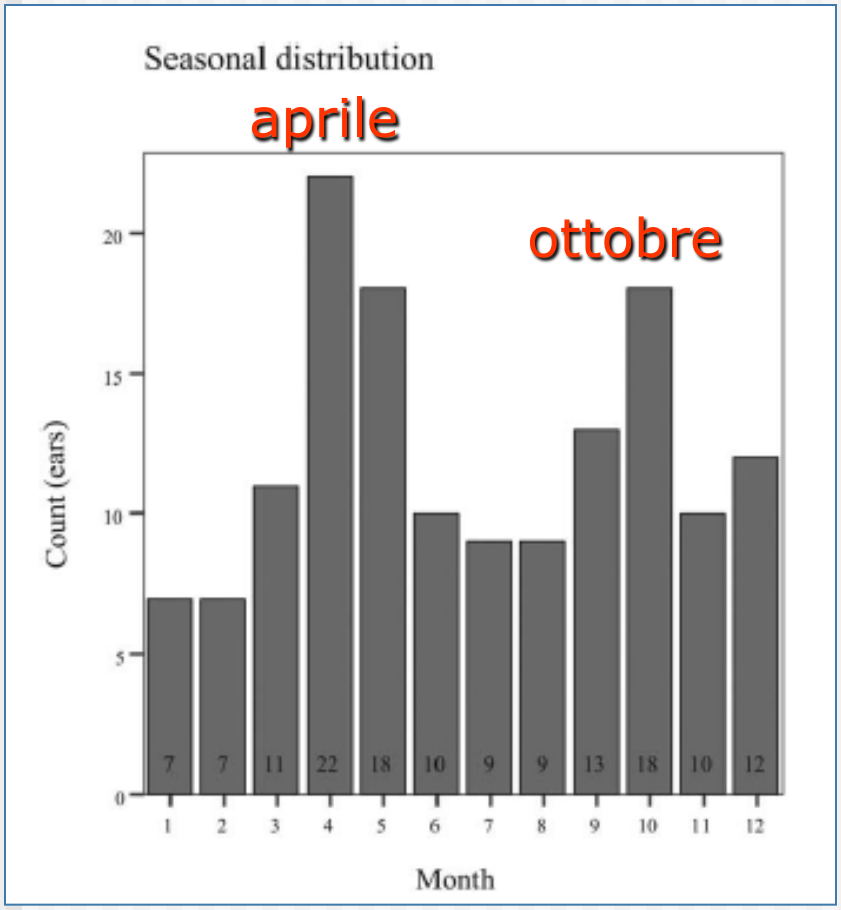
- Prevalenza INSI bilaterale: 0,4–4,9%
- Età significativamente più elevata rispetto alla INSI-monolaterale ($\bar{x}$: 51 vs 41 anni)
- Diabete mellito 37,5% (11% nella INSI-monol.)

Hearing gain of patients with SSNHL

	Group 1	Group 2
Initial PTA* (dB)	63.4	75.4
Final PTA (dB)	55.6	52.0
Hearing gain* (dB)	7.8	23.4

Group 1, simultaneous bilateral SSNHL; *group 2*, unilateral SSNHL; *PTA*, pure-tone averages (0.5, 1, 2, and 3 KHz). *$P < 0.05$, analysis of variance.

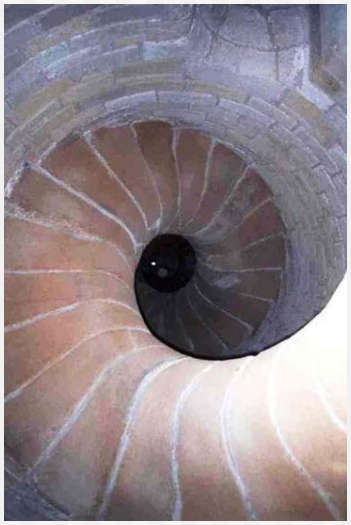
Stagionalità



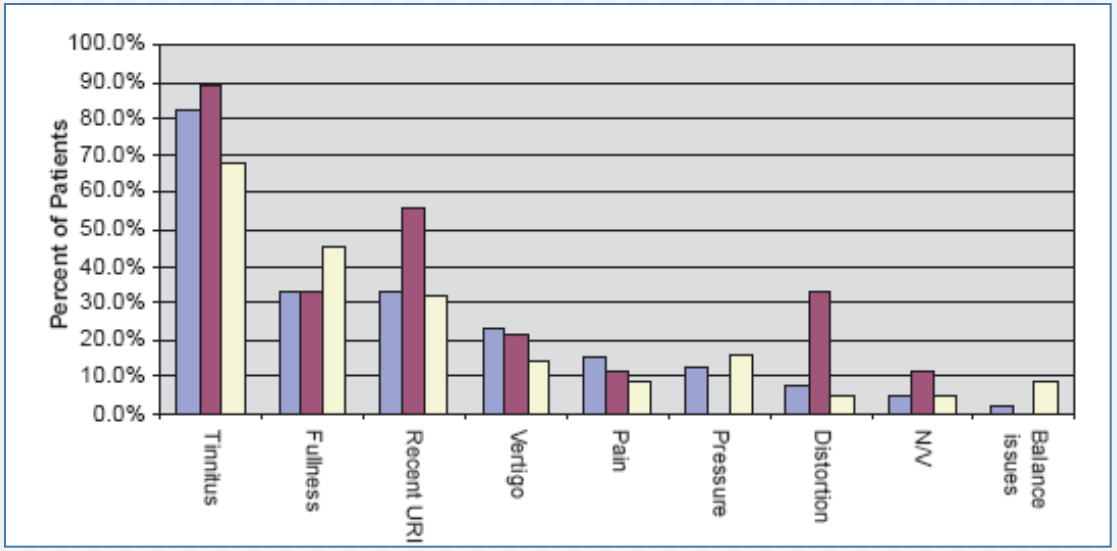
Corrispondenza stagionale con infezioni virali (VRS, rhinovirus, influenza, rosolia, morbillo, eventi vascolari)

Chang et al (2005)

Sintomi

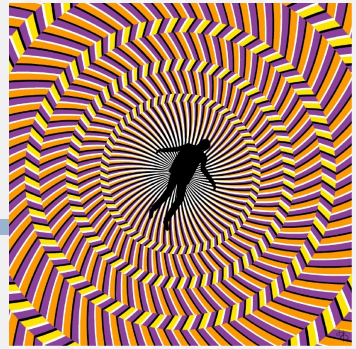


- Acufeni
- Fullness
- Vertigine



Jeyakumar et al 2006

Vertigine



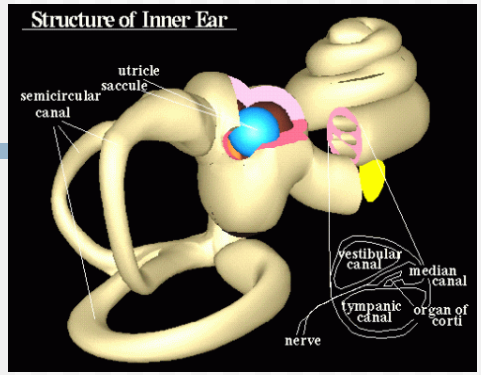
- 30-40%
- Associata più frequentemente a ipoacusia profonda
- Prognosi uditiva peggiore

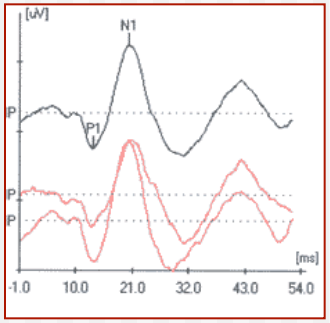
Extent of Lesions in Idiopathic Sudden Hearing Loss With Vertigo

Study Using Click and Galvanic Vestibular Evoked Myogenic Potentials

Shinichi Iwasaki, MD; Yoshinari Takai, MD; Hidenori Ozeki, MD; Ken Ito, MD; Shotaro Karino, MD; Toshihisa Murofushi, MD

Arch Otolaryngol Head Neck Surg. 2005;131:857-862





Results: Among the 22 patients, 17 (77%) showed an absence of click-VEMPs on the affected side. In response to caloric testing, 10 patients (45%) showed a decreased response on the affected side. All 8 patients who underwent galvanic-VEMP testing showed normal responses.

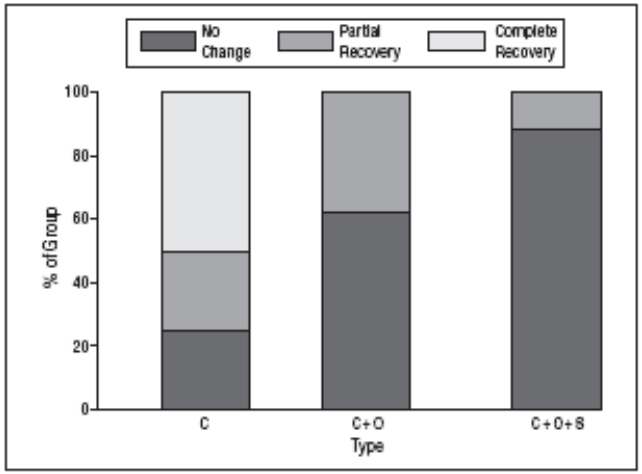
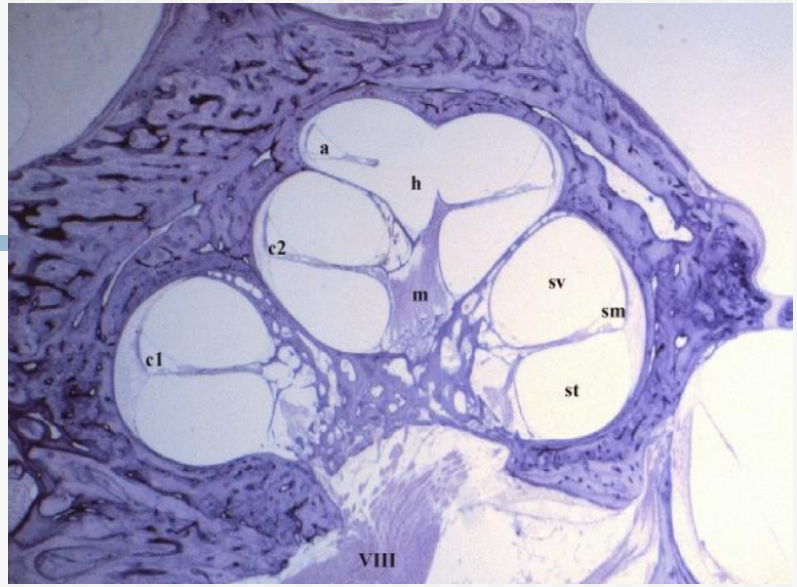


Figure 4. Hearing recovery related to types of vestibular dysfunction in 22 patients. The types of dysfunction are explained in the legend to Figure 3.

INSI

- Manifestazione clinica eterogena, multifattoriale, differenti eziopatogenesi

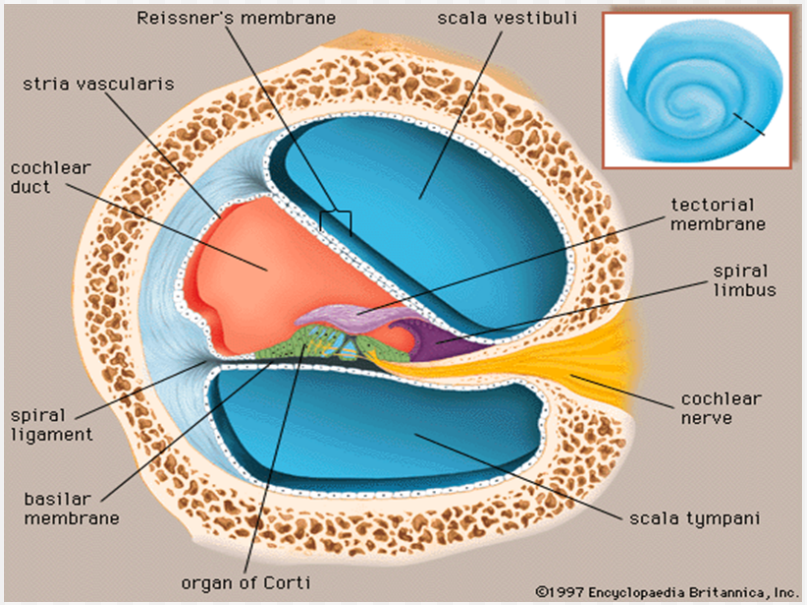
Eziopatogenesi



- **Vascolare**
- **Virale**
- **Auto-immunità**
- **Lesioni membranose**

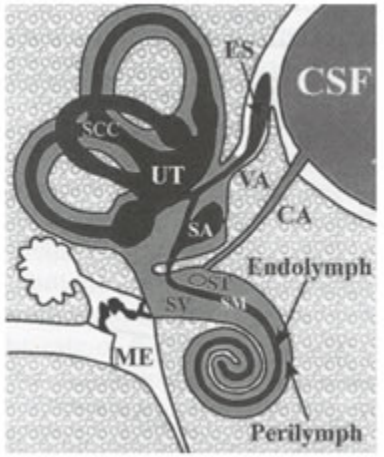
Eziopatogenesi virale

- Infezione respiratoria acuta
  - viremia
  - stria vascolare

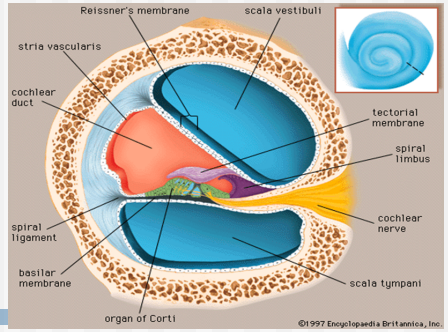


Eziopatogenesi virale

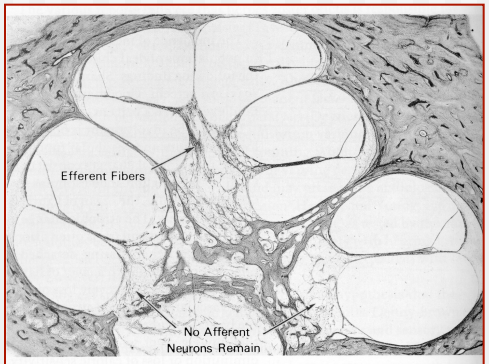
- Via neurale
- Virus latenti (gruppo HV)
  - √ CMV
  - √ VZ
  - √ EB
- Altri virus neurotropi
  - √ morbillo
  - √ parotite
  - ➢ acquedotto cocleare / MAI
  - ➢ fluidi labirintici

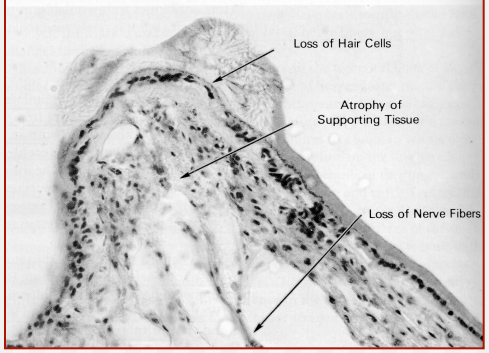


Eziopatogenesi virale



- Perdita cellule ciliate e di sostegno
- Atrofia della membrana tectoria, stria vascolare
- Degenerazione lembo spirale
- Perdita cellule gangliari





Schuknecht, 1974

Eziopatogenesi virale

PRO

- Frequenza di sieroconvesione di HSV maggiore nella popolazione con INSI
- Reperti istologici cocleari compatibili con esiti di danno virale (documentati negli esiti di ipoacusia dopo morbillo, parotite, rosolia)

Eziopatogenesi virale

CONTRO

- Mancanza di reazione anticorpale specifica
- Inefficaci i farmaci antivirali
- Differente pattern di alterazione della popolazione neurale in casi di dimostrata cocleite virale
- Inoculazione sperimentale produce alterazioni istopatologice (fibrosi, neo-osteogenesi, emorragia, infiltrazione leucocitaia, ampia degenerazione neurale e cellulare) non tipiche della INSI