Mondini Deformity: Dysplasia of the bony labyrinth characterized by a normal basal turn of the cochlea, with a sac instead of the apical turns, a grossly dilated vestibulr aqueduct and a dilated vestibule.

Patient Details
12 cases, 13 ears implanted
5 adults, 7 children; age range 3 – 48 years
6 N22, 1 CI24M, 3 Med-El C40+, 3 Nucleus Freedom

Surgical complications
- CSF gusher occurred in 10 out of 13 surgeries
- Gusher varied from ‘minimal’ to ‘furious’
- 1 patient required further surgery to plug leak
- Balance problems were reported following surgery in 6 cases (often associated with vomiting and long-lasting in 1 case)
- Headaches were reported by 2 patients post-operatively

Audiological Findings
- 1 patient has a kink in the electrode array requiring deactivation of some electrodes
- All Nucleus 22 and 24 patients have high T and C levels
- All of these also had CSF gushers during surgery
- Majority have increased pulse widths or stimulation modes to accommodate the high current requirements
- Of the 3 Med-El users, 2 have increased pulse durations but MCLs are still within the normal range

Outcomes
- Outcomes vary between very successful to very poor for adults and children
- Only 3 out of 10 implanted for more than 1 year have become good users
- Remainder are below average or poor performers
- Three patients have become non-users
- Long term deafness is a confounding variable in some cases
- Auditory nerve may be suspect in some cases

Can we predict outcomes for Mondini patients?
Not precisely, but these indicators may be helpful:
- Normal speech production pre-operatively
- Less severe abnormality on CT scan
- Progressive hearing loss
- Auditory nerve may be suspect in some cases

Reference