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A study on the Cochlear View Radiography in Multichannel Cochlear Implantees

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Purpose : Cochlear implant poses a contraindication to the magnetic resonance imaging (MRI) process, because MRI generates artifacts, inducing an electrical current and causing device magnetization. CT is relatively expensive and the metal electrodes scatter the image. Post-implantation radiological studies using anterior-posterior transorbital, submental-vertex and lateral views, the intracochlear electrodes are not well displayed. Therefore, developed a special view, which we call the cochlear view.

Materials and Methods : The patient is sitting in front of a vertical device. Then the midsagittal plane is adjusted to form an angle of 15°, 13°, 45° with the film. The flexion of the neck is adjusted to make the infraorbitomeatal line(IOML) is parallel with the transverse axis of the film. The central ray is directed to exit from the skull at a point which is 3.0 cm anterior and 2.0 cm superior to the EAM(external auditory meatus)at a right angle to the film.

Results : Results have shown that single radiography of the cochlear view provides sufficient information to demonstrate the position of the electrodes array and depth of insertion in cochlear.

Conclusion : Radiography of the cochlear view in angle of 45° is very excellent image. The cochlear view gives the greatest amount of medical information with the least radiation and lowest medical cost. It can be widely used in all cochlear implant clinics

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