

**Session 3-P: Cataract: Phaco Techniques**

**Title: Sub-2.0 mm Coaxial Phacoemulsification**

**Presenter:** Takayuki Akahoshi, MD

**Purpose:** To attain co-axial phaco surgery through a sub-2mm incision followed by single-piece AcrySof implantation through the same incision.

**Method:** Ultra small silicone sleeve was newly designed to fit on the 1.1 mm Akahoshi Tip (Alcon #8065 750186). Clear corneal incision was made by a stainless steel or diamond keratome. The incision size was measured with a micro incision gauge (ASICO AE-1574T) before and after the surgery. After prechopping the nucleus, phacoemulsification was performed using NeoSoniX handpiece. 6.0 mm optic single-piece AcrySof was implanted using Royale injector with C-cartridge.

**Results:** Cataract was successfully removed through a 1.7 mm incision. The phaco procedure caused an incision increase of approximately 0.1 mm. All incisions were easily sealed just by increasing the intraocular pressure. The incision was superior to using a high-stress conventional sleeveless bimanual phaco.

**Conclusion:** Sub-2mm co-axial phaco surgery was realized by the new ultra small sleeve, which can replace the stressful bi-manual surgery.