

# Clinoidectomía anterior intradural para clipado de aneurisma paraclinoideo izquierdo: video quirúrgico

## 2<sup>do</sup> Premio Video "Dr. Julio A. Gherzi", 46<sup>o</sup> Congreso Argentino de Neurocirugía

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### RESUMEN

**Introducción:** Los aneurismas paraclinoideos representan un verdadero desafío microquirúrgico para su resolución.

**Objetivo:** Presentamos el caso de una mujer de 43 años de edad con cefalea, detectando en angiografía aneurisma paraclinoideo izquierdo.

**Material y métodos:** Se realizó abordaje pterional izquierdo y exposición de carótida interna a nivel cervical, durotomía arciforme con apertura de cisterna silviana hacia cisterna carotídea. Se expone la apófisis clinoideas anterior, observándose en el video, el aneurisma naciendo del segmento clinoideo de la arteria carótida interna, siendo imposible el clipado de la misma sin clinoidectomía anterior. Se secciona la duramadre desde medial respecto al conducto óptico hasta la apófisis clinoideas. Se realiza fresado en la base de la apófisis clinoideas para exponer el anillo dural distal.

Se libera la carótida en el segmento clinoideo a través de la sección del anillo dural distal para poder movilizarla. Identificado el cuello distal y proximal del aneurisma, se comienza la reconstrucción colocando un clip a 90° en dirección anteroposterior, un segundo clip en dirección posteroanterior y al punzar el aneurisma se constata flujo aneurismático presente. Se coloca un tercer y cuarto clip en tándem desde la proximidad a la carótida interna hacia el domo del aneurisma. Finalmente se posiciona un quinto clip curvo sobre los anteriores para darles mayor presión de cierre.

**Resultados:** Se observa angiografía postoperatoria con exclusión completa del aneurisma con adecuada permeabilidad carotídea. El período postoperatorio fue excelente, sin déficit neurológico. La paciente brindó consentimiento para publicar sus imágenes y videos.

**Palabras claves:** Aneurisma Paraclinoideo; Base de Cráneo; Clinoidectomía Intradural; Clipado en Tándem

### ABSTRACT

**Introduction:** Paraclinoid aneurysms represent a true microsurgical challenge.

**Objective:** We present the case of a 43-year-old woman with headache, in whom a left paraclinoid aneurysm was detected by angiography.

**Methods and Materials:** A left pterional approach was adopted, combined with exposing the internal carotid artery at the cervical level, and an arciform durotomy with the opening of the sylvian fissure to the carotid cistern. The anterior clinoid process was exposed, revealing the aneurysm originating from the clinoid segment of the carotid artery; consequently, clipping was impossible without an anterior clinoidectomy. The dura was cut medially from the optic canal to the clinoid process. Drilling was performed at the base of the clinoid process to expose the distal carotid dural ring. The carotid was released in the clinoid segment by sectioning the distal dural ring to mobilize it. After identifying the distal and proximal neck of the aneurysm, reconstruction was initiated by placing a 90-degree clip in the anteroposterior direction; then, a second clip in the posteroanterior direction and puncturing the aneurysm, demonstrating that aneurysmal flow was present. Third and fourth clips were placed in tandem, one proximal to the internal carotid and the other at the dome of the aneurysm. Finally, a fifth curved clip was placed over the previous clips to increase their closure pressure.

**Results:** Postoperative angiography revealed complete exclusion of the aneurysm with adequate carotid permeability. The postoperative period lacked any complications or neurological deficits. The patient consented to have her images and videos published.

**Conclusions:** Combining a left pterional approach with exposing the internal carotid artery at the cervical level and performing an arciform durotomy at the sylvian fissure's opening into the carotid cistern, an angiographically-detected left paraclinoid aneurysm was treated successfully with an excellent outcome.

**Key words:** Paraclinoid Aneurysm; Skull Base; Intradural Clinoidectomy; Tandem Clipping

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