ARACHNOIDAL TEMPORAL CYSTS ENDOSCOPIC FENESTRATION
A PERSONAL EXPERIENCE

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GENERAL CONSIDERATIONS

• INCIDENCE
  4.8% - INTRACRANIAL LESIONS
  0.1% - 1% GENERAL POPULATION (AUTOPSIES)

• IN PEDIATRIC CENTERS UP TO 12%

• HIGHER FREQUENCY IN MALES 2 : 1

• DISTRIBUTION:
  TEMPORAL (50%)
  CUADRIGEMINAL (10%)
  SUPRASELLAR (10%)
  POSTERIOR FOSSA (10%)
SIGNS AND SYMPTOMS

• Headaches 47 % * main indication
• Seizures 30 %
• Cranial asymmetry 25 %
• Visual impairment 25 %
• Focal signs 15 %
• Sichomotor deficit 15 %
• Autism 7 %
ACTUAL OPTIONS FOR TREATMENT

1. CRANIOTOMY AND MICROSURGICAL RESECTION
   Failure 24-67%

2. ENDOSCOPIC FENESTRATION
   Failure 20-34%

3. CYSTOPERITONEAL SHUNTING
   (Disfunction 40% - slit ventricles)

4. KEY HOLE MICROSURGERY (80% success)
INCA EXPERIENCE  1999-2014

• 15 years period

• 140 patients under 15 years old

• Gender : Masc. 64 % Fem. 36 %

• Personal experience
AGE DISTRIBUTION

- Less 2 yo: 22
- 5-10 yo: 52
- 10-15 yo: 26
INTRACRANIAL ARACHNOID CYSTS

- Intradiploic 3
- Intracranial 140
- Supratentorial 120
- Suprasellar 15
- Sylvian fissure 100
- Interhemispheric 5
- Infratentorial 20
- Middle line 16
- CPAngle 4
OUTCOME

ACCORDING CYST SIZE (IMAGES)

TOTAL RESOLUTION 10 % *
SIZE REDUCTION 65 % *
NO SIZE CHANGE 25 %

CLINICAL IMPROVENT 23
NO CLINICAL CHANGE 9

CLINICAL STATUS AT FINAL FOLLOW UP (3 YEARS)

BETTER 93 %
NO CHANGE 7 % (other procedure is needed)
COMPLICATIONS

Mortality 0
Morbidity

- CSF leak 12 (9.5%) (2 need reop)
- Ventriculitis 3
- Cystitis 1
- Wound infection 4
- Hygroma 4
- Subdural effusion 3
- III Nerve palsy 3 (transient)
- Intraop. SHA 2
- HCF 2a SHA 1 (*)
Silvian fissure arachnoid cysts: a survey on their diagnostic workout and practical management

G. Tamburrini, M. del Fabro y C. Di Rocco
Pediatric Neurosurgery Unit - Catholic University MS - Rome - ITALY

Surgical options
- Microsurgical fenestration 44%
- Walls resection 22%
- Endoscopic fenestration 16%
- Assisted endoscopic fenestration 13%
- Cistoperitoneal shunt 6%
  (programmable 2% - medium pressure 4%)

*45 PNS centers (Garrahan-INC-Rio)
CONCLUSIONS

ENDOSCOPIC FENESTRATION

- Minimally invasive technique
- Shorter hospital stay and lower cost
- Avoids shunting and secondary morbidity
- Redo is feasible in failures
- No limits for other procedures (shunts-surgery)
- Outcome is slower
- Microsurgery Assisted by endoscopy may be useful for sylvian fissure cysts
CONCLUSIONS II

• Microsurgical fenestration is preferred in centers where Neuroendoscopy is not developed

• No double blind studies and randomized to define better therapy

• Lack of cooperative studies

• Use of shunts is definitively abandoned