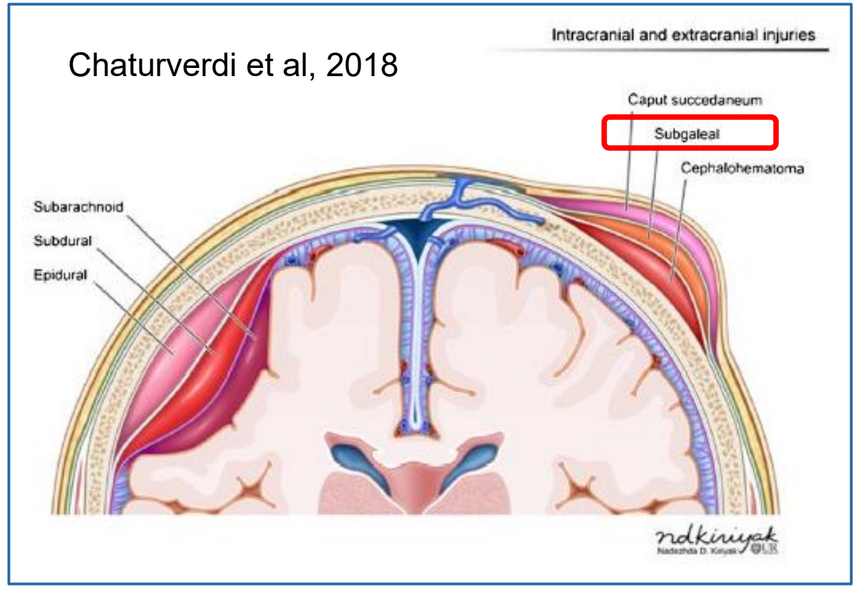
MONOCENTRIC RETROSPECTIVE STUDY ON THE INCIDENCE AND RISK FACTORS OF SUBGALEAL HEMATOMAS

Subgaleal hematoma (SGH)



Aim

- Retrospective study
- Geneva University Hospital

- Incidence
- Key obstetrical and neonatal risk factors
- Refine management practices

- Early detection and close monitoring
  - Reduce complications
  - Reduce mortality 12-25% -> 2.1% (Boo et al, 2005)
  - Improving neuro-developmental prognosis
- ↓ duration of hospital stays

Methods

158 neonatal admissions 01/01/2017 → 15/11/2023 for birth trauma

48 patients with subgaleal hematomas

Including 5 transferred from another hospital

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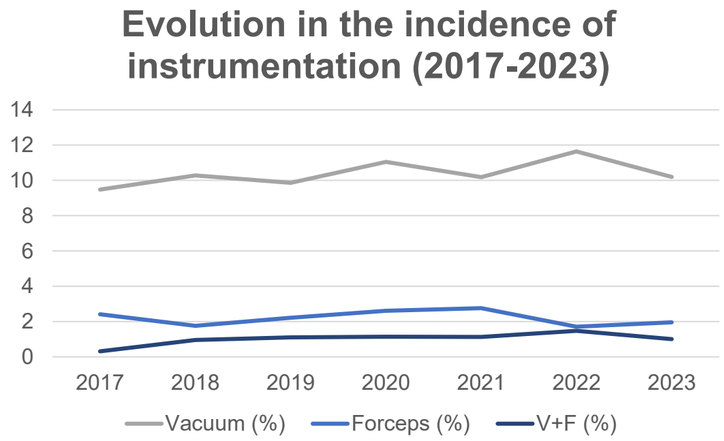
Results: Incidence and Risk Factors

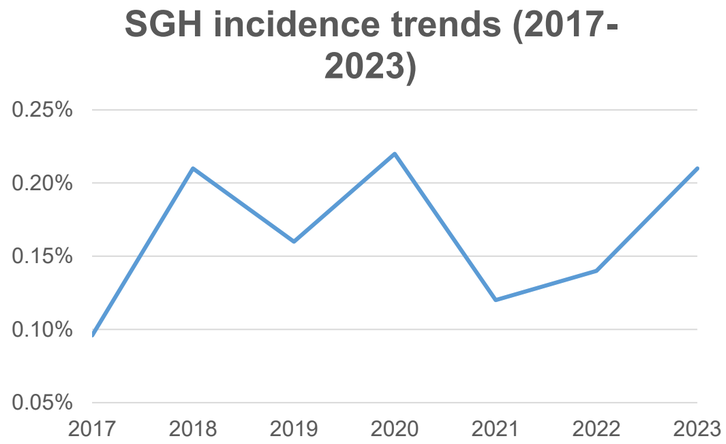
Population

- Mean GA: 39 1/7 weeks
- 65% ♂

Incidence

- 1.5/1000 total births
- 11.9/1000 instrumented births
  - 11/1000 vacuum births
  - 42/1000 vacuum + forceps births





Risk factors

- 96% of instrumentation: 67% Vacuum – 4% Forceps – 25% both

Vacuum failure: 20/44 (45%)

Failed instrumentation: 13 caesarean sections (27%)

Mean Apgar score at 5 min: 8

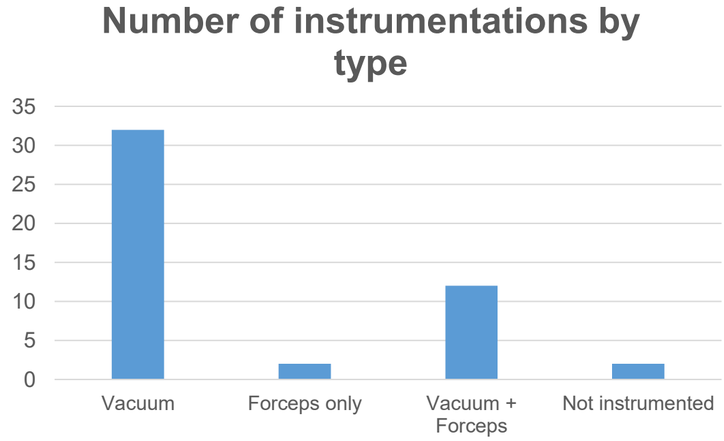
In severe case : 6,5

Primiparity: 44/48 or 92% (vs literature 90-95% of HSG cases)

Male: 31/48 (65%)

- Mean HC M 35,8cm vs F 34,8cm
- Mean BW M 3546g vs F 3260 g

Gestational thrombocytopenia: 4 patients



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Results and Conclusion

Results according to Chadwick et al.'s Classification (2007)

- Inclination towards **milder manifestations** within our cohort and less severe
- In the literature, 15-20% of Mild, 40-50% of Moderate and 25-33% of Severe

Severity	Number of patients	Distribution	Head circumference	Jaundice	Hypovolemia
Mild	27	56,2%	27 (<1cm)	0	0
Moderate	17	35,5%	5 (1-3cm) (29,5%)	10 (59%)	3 bolus NaCl 0,9% (18%)
Severe	4	8,3%	3 (>3cm) (75%)	1 (25%)	1 transfusion (25%) 3 bolus NaCl 0,9% (75%)
TOTAL	48			11 (23%)	5 bolus NaCl 0,9% (10,5%) 1 transfusion (2%)

- **Classification modified by Christensen** et al. (2023) doesn't look at the variations of HC and separates the Moderate group in 2:
  - A: Jaundice with phototherapy
  - B: Hypovolemia with fluid bolus
- Similar GA in the subgroups
- **Cerebral US:** 52% performed, 24% have seen the SGH
- **Instrumentation**: More Vacuum + Forceps in the group Severe
- **Complications** like jaundice, anemia, hypovolemic shock, anoxic-ischemic encephalopathy were more seen in the group Severe
- **Average length of hospital stay**: 1,3 days for Mild, 2,2 days for Moderate, **4,5 days for Severe**

Conclusion

No rise in SGH rates in HUG – overdiagnosis of mild SGH?

Main risk factors: Full-term male neonate of primiparous mother, delivered by instrumented vaginal delivery, in particular by vacuum.

Cerebral US is NOT usefull to detect SGH, it is a clinical diagnosis.

The sooner it is detected, the better the prognosis.

The classification modified by Christensen et al (2023) seems to be more accurate than the Chadwick et al (2007).

We advocate in case of suspicion of SGH for a minimum of 6 to 12-hour monitoring in NICU before going to the maternity if stable.

Study underway, adding subsequent years, in coordination with obstetricians focusing on obstetrical risk factors.

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