Outcome 25 years after the surgery for scaphocephaly.

N. Salokorpi, T Savolainen, JJ Sinikumpu, P Pirttiniemi, W Serlo
Oulu, Finland

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Materials and Methods

- 41 patient operated for scaphocephaly between 1977-1998 at Oulu University Hospital were "tracked" and approved to participate in the study.
  - Age at operation 5.1 mo (9 d to 45 mo)
  - Age at follow-up 26.9 years (18-38 y)
  - 26 males and 15 females

- 41 controls randomly selected from Finnish State Register
  - Age mean 27.4 years (18-39 y)
  - 26 males and 15 females
Operation technique

Craniotomia parasagitalis with silicone membrane until 1982 (8)

Suturectomy with or without dural split until 1985 (6)

Modifications of the H-technique (27)
Follow-up visits

• Clinical evaluation
• Orthodontic evaluation (occlusal characteristics: overbite, over-jet, cross bite, scissor bite etc.)
• Structural validated questionnaires' about education, housing, marital status, oral-health related quality of life etc.
• Rating of satisfaction with own appearance
• Imaging: standardized photographs, 3D-photogrammetric images, bite scans
Panel evaluation

- Panel evaluation of patients and controls appearance from the photographs' on the 10-point Visual Analogue Scale.
  - panel of orthodontic dentists
  - panel of lay persons
  - standardized images
  - 82 cases and controls in randomized order, blinded
  - 10 sec per image
Results

• General health, headaches, mental problems: no significant (N.S.) difference between the groups.
• Orthodontic treatment due to malocclusions: in 59% patients and in 63% controls. N.S.
• Housing: living with parents 5 in patient group and 2 in control group. The rest living independently. N.S.
• Marital status: married or cohabiting 21 patients and 20 controls. N.S.
• Employment: unemployed 5 patients and 4 controls, students 10 patients and 8 controls. N.S.
• Satisfaction with facial appearance: 7.4 in patients and 7.7 in controls. N.S.
Panels evaluation of appearance
10-cm VAS

- Dentists: 6.2 patients, 6.9 controls ($p=0.001$)
- Lay persons: 6.1 patients, 6.6 controls ($p=0.017$)
- No correlation with operative technique

Quiz: Who has been operated for scaphocephaly?
Conclusion

- Patients treated for scaphocephaly did manage in life as well as controls in general and were equally satisfied with their appearance.
- Independent panels found patients appearance less attractive, but the difference was less than 1 point on a 10 cm Visual Analogue Scale.
- Type of surgical technique used didn’t correlate with the aesthetic outcome.

In the future objective 3D photogrammetric evaluation
Quiz: who was operated?

Operated for scaphocephaly: cases 2, 3, 4, 5 and 6
Control: case 1