Pediatric otoplasty in the UZ Brussels: an evaluation of the operative technique, subsequent patient satisfaction and objective results

Smets Tine MD, Foulon Ina MD PhD, Gordts Frans MD PhD

The modified Converse and Wood-Smith technique is a satisfying operative technique to correct prominent ears in children.

Introduction
In the University Hospital of the Vrije Universiteit Brussel, a modification of the Converse and Wood-Smith technique is used to correct prominent ears in children. The aim of our study is to describe this technique and present our objective and subjective results.

Methods
• 54 children, representing 105 ears
• 5-13 years old (mean age= 7.2y ±1.7)
• Modification of Converse and Wood-Smith technique (see Surgical Technique), minimum 6 months follow-up
• Satisfaction patient/parent (VAS), satisfaction surgeon (VAS), auricular protrusion, McDowell criteria, complications

Results
• Mean satisfaction patient/parent= 8.5 ±1.94 (Mdn=9)
• Mean satisfaction surgeon= 8.3 ±0.5 (Mdn=8.5)
• Satisfaction of patient was significantly higher (p=0.04)
• Mean change in auricular protrusion was 7.5mm ±3.9
• No significant correlation with patient satisfaction
• McDowell criteria: -80% met at least 5 criteria
• -20% met 4 criteria
• Significant correlation with patient satisfaction (Spearman’s rho 0.427, p=0.04).
• Most important complications:
  - Recurrence of protrusion (11 ears)
  - Infection (4 ears)
  - Hypertrophic scar formation (4 ears)
  - Hematoma (2 ears)
• Revision surgery in 7 out of 105 ears (6.7%)

Conclusion
The correction of prominent ears in children with the modified Converse and Wood-Smith technique is satisfying for both patients and surgeons. This study will be repeated in the future in a fully prospective manner.

Surgical Technique

1. Incision and soft tissue removal
   Fusiform area is marked
   Excision of skin
   Skin is undermined

2. Determining cartilage incision lines
   Needles marking conchal line
   Needles marking scaphal line
   Needles marking fossa line

3. Incision and tubing of cartilage
   Position of needles are marked at posterior surface
   Incision of cartilage
   Tubing anthelix with 4-6 mattress sutures (Blue lines). Removal of small strip conchal cartilage (green area).

4. Rotation of lobule
   Soft tissue of lobule is grasped
   Mattress suture between lobule and concha
   Tightening suture until desired setback

5. Setback of concha
   Three mattress sutures from the scapha concha, concha cymba and triangular fossa to the mastoid
   Tightening suture until desired setback