

Comparison of three surgical techniques for internal angular dermoid cysts: a randomized controlled trial.

Abstract

Purpose: To compare the outcomes of three techniques for removing internal angular dermoid cysts: lid crease, sub-brow, and direct mini-incision.

Methods: In this single-center trial, 47 children with internal angular dermoids were enrolled and randomly assigned to one of three surgical groups: group A, sub-brow, group B, lid crease, and group C, direct mini-incision. Outcome measures were operative time, postoperative scar quality using Stony Brook Scar Evaluation Scale (SBSES), scar visibility, and family satisfaction.

Results: In each group, fifteen patients completed follow-up and were analyzed. The operation time (median/IQR) in Group C was significantly shorter (10/5 min) compared with group A (25/10 min) and B (35/20 min) ($p < 0.001$). Group B had the least visible scar at all follow-up visits. Both group B and C showed superior scar quality using SBSES compared with group A at 6 months ($p < 0.001$). All families in group B (100%) found the scar excellent compared to 11 families in group C (40%) and 6 families in group A (73.3%). Persistent postoperative inflammation was noticed in two patients in group C. No cases of recurrence were recorded.

Conclusions: Both the lid crease and direct mini-incision approaches result in superior scar quality with minimum visibility compared with the sub-brow technique, however, the lid crease technique shows a prolonged operation time particularly for cysts outside the rim.