

Wegener's (Polyangiitis) Granulomatosis Nasal Reconstruction: Lasting Structural Support with Cadaveric Cartilage

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Abstract Text:

Background: Granulomatosis with polyangiitis (Wegener's) is known to cause progressive nasal collapse related to the dissolution of septal and other nasal cartilage resulting in nasal obstruction and severe central face deformity. It is not known whether structural reconstruction with cadaveric cartilage is comparable to traditional rib cartilage grafting. To investigate this we compared the 2 reconstructive groups for long term stability.

Methods: Patients suffering from Granulomatosis with polyangiitis (Wegener's) were divided into 2 groups: 1) Costocartilaginous and 2) Cadaveric cartilage (MTF) based on reconstructive grafts ("L-strut", alar rim, spreaders, tip grafts) used for structural reconstruction (n=55) performed consecutively over an 18-year period. Outcome assessment was based on perioperative complications, long term stability (1-year), need for revisions, and patient-reported functional and aesthetic outcomes using the SCHNOS validated questionnaire (Student's T-test used).

Results: Perioperative complications (infection, exposed cartilage, need for take-back) was similar in the 2 groups (9% and 7%) and related to preoperative severity (increased SCHNOS score); all with scores more than 40)-likely related to soft tissue contraction. With patient reported outcomes, cadaveric cartilage was slightly superior (lower scores) to costocartilaginous with postoperative scores: (11.1+2 vs 19.2+4) and improvement (greater difference between preoperative to postoperative scores (36.3+9 vs 29.9+7). Donor site morbidity was a concern postoperative pain after costocartilaginous grafts. Cost matrix analysis showed costocartilaginous cases were 9% more costly due to increased operative time, despite the additional cadaveric cost.

Conclusions: Cadaveric cartilage structural reconstruction was comparable to traditional rib cartilage

for Palyangiitis Granulomatosis nasal reconstruction and provided patients with major functional and cosmetic improvement.

Tracks:

Clinical