Steroid resistant sinusitis

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Objective: To clarify the underlying mechanism in resistance to glucocorticoid therapy for chronic rhinosinusitis (CRS), the expression of glucocorticoid receptors (GR), periostin, 11 beta hydroxysteroid dehydrogenase (11 HSD) were investigated.

Methods: We studied 37 tissue samples from 20 patients with CRS, and samples from age-matched controls. Patients were treated with intranasal fluticasone for 8 weeks and biopsies were obtained after treatment. The expressions of GR-alpha,

GR-beta, nuclear factor-kB (NF-kB) periostin, and 11HSD in nasal mucosa was studied immunohistochemically.

Results: GR-alpha and NF-kB were expressed to a similar extent in patients and controls, but GR-beta, periostin, and 11 HSD were expressed significantly more in patients.

Conclusion: Our findings suggest that GR-beta, periostin, and 11 HSD play an important role in resistance to glucocorticoid therapy for CRS, and their expression might be used as an additional parameter indicating steroid resistance in CRS.