



Glucocorticoid receptor expression in the tonsils of children with obstructive sleep apnea hypopnea syndrome

X. Chen and J.R. Li

Department of Otolaryngology-Head and Neck Surgery, Navy General Hospital, Beijing, China

Corresponding author: J.R. Li
E-mail: lijirang322@163.com

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ABSTRACT. The expression of glucocorticoid receptor- α and - β (GR- α and GR- β) in the tonsil tissues of children with and without obstructive sleep apnea hypopnea syndrome (OSAHS) was evaluated. A total of 30 children with OSAHS who underwent tonsillectomy in the Navy General Hospital from June 2012 to June 2014 were enrolled as the experimental group, and 30 non-OSAHS children were enrolled as the control group. The diagnosis of OSAHS was confirmed by preoperative sleep monitoring. The expression of GR- α and GR- β in tonsil tissues was detected using western blot and immunohistochemical analyses. GR- α and GR- β were both expressed in the tonsil tissues of OSAHS and non-OSAHS patients. The expression of GR- α in the tonsil tissues of OSAHS children was significantly lower than that in the tonsil tissues of non-OSAHS children, while the expression of GR- β in the tonsil tissues was similar between the two groups of children. Since it has been reported that GR- α expression is correlated to glucocorticoid therapy sensitivity, the sensitivity of children with OSAHS to glucocorticoid treatment may be lower than that in children

who do not have OSAHS. However, the function of GR in children with OSAHS still requires further investigation.

Key words: Obstructive sleep apnea hypopnea syndrome; Tonsil; Glucocorticoid receptor; Glucocorticoids