Silent sinus syndrome or chronic maxillary sinus atelectasis characterized by asymptomatic hypoplasia of maxillary sinus, progressive enophthalmos, facial asymmetry. Hypoplasia of maxillary sinus caused by its long-term hypoventilation due to anatomical changes in osteomeatal complex. The diagnosis based on clinical features and data of computed tomography. Silent sinus syndrome is a rare entity in children.

**Aim of the study:** to evaluate the efficacy of endoscopic sinus surgery in restoration of the ventilation and volume of the maxillary sinus in children with chronic maxillary atelectasis.

**Methods:** study included 5 children with chronic maxillary sinus atelectasis. Children had symptoms of recurrent unilateral sinusitis during several years. Medical treatment was ineffective. Preoperatively and 6 months after surgery CT with calculation of the maxillary sinus volume was performed. All children underwent endoscopic sinus surgery.

**Results:** In time performed endoscopic sinus surgery with restoration of the maxillary sinus ventilation leads to spontaneous increase of the sinus volume, decrease of the facial asymmetry, normal development of the paranasal sinuses and facial skeleton in children.