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The influence of perennial allergic rhinitis on facial type and a pilot study of the effect of allergy management on facial growth patterns.

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Perennial rhinitis with an allergic component (PRAC) in association with chronic mouthbreathing has been thought to cause skeletal open-bite facial type and narrow transverse facial dimensions. The object of this study was to supply data for this theory and to determine if allergy management would alter the course of facial growth. When a group of children, aged 5 to 10 years, with PRAC was compared with a matched control sample, a significantly larger palatomandibular angle and lower anterior facial height were found for the PRAC group. Transverse cephalometric measurements showed significantly narrower bilateral orbital breadth, bizygomatic, and binasal dimensions (narrower face) of the PRAC patients compared with the control sample. A pilot study of twelve PRAC patients who received 2 1/2 years of allergy management revealed no significant dento-facial dimensional change. This study suggests that PRAC with chronic mouthbreathing can alter the development of the midface. Whether allergy therapy can prevent or change this is as yet uncertain.

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