

Metopic ridge

The [metopic suture](#) is the only suture which normally closes during infancy. Upon closure, a palpable and visible ridge often forms which can be confused with [Trigonocephaly](#).

Applegren et al. sought to determine the relationship between mild-to-moderate [trigonocephaly](#) and anterior cranial volume using a noninvasive laser shape digitizer ([STARscanner](#)) in patients with abnormal head shape. An IRB-approved retrospective review of a prospectively maintained database and medical records was performed. Two hundred three patients less than 1 year of age with abnormal head shape were categorized as having a [metopic ridge](#) with mild-to-moderate trigonocephaly, metopic ridge without trigonocephaly, or no ridge. Measurements of cranial volume, circumference, and symmetry were calculated by the STARscanner, which quantifies three-dimensional shape of the cranial surface. Measures were analyzed using a series of analyses of variance and post-hoc Tukey honest significant difference.

The authors results showed ACV was significantly reduced in patients with mild-to-moderate trigonocephaly compared with those without metopic ridge ($P=0.009$), and trended toward significance compared with those with a ridge but without trigonocephaly ($P=0.072$). The ratio of anterior-to-posterior cranial volume was significantly reduced in those with mild-to-moderate trigonocephaly compared with those without metopic ridge ($P=0.036$).

Patients with milder anterior cranial deformities demonstrated an association between a [metopic ridge](#) with mild-to-moderate trigonocephaly and reduced anterior cranial volume ¹⁾.

Benign metopic ridge

[Benign metopic ridge](#)

¹⁾

Applegren ND, Shock LA, Aldridge KJ, Derrick CD, Tanaka T, Baker CL, Muzaffar AR. Relationship of a Metopic Ridge and Anterior Cranial Volume Measured by a Noninvasive Laser Shape Digitizer. J Craniofac Surg. 2017 Oct 23. doi: 10.1097/SCS.0000000000004065. [Epub ahead of print] PubMed PMID: 29065051.

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Last update: **2024/06/07 02:59**

