

# Chiari Health Index for Pediatrics

The Chiari Health Index for Pediatrics (CHIP) has 45 items with 4 components making up 2 domain scores, physical (pain frequency, pain severity, nonpain symptoms) and psychosocial; physical and psychosocial scores are combined to create an overall HRQOL score. Increasing scores (0 to 1) represent increasing HRQOL. Fifty-five patients with CM-I (mean age  $12 \pm 4$  years, 53% male) were enrolled and completed the CHIP and Health Utilities Index Mark 3 (HUI3). Twenty-five healthy controls (mean age  $11.9 \pm 4$  years, 40% male) also completed the CHIP. CHIP scores were compared between these groups via the Mann-Whitney U-test. For CHIP discriminative function, subscore versus presence of CM-I was compared via receiver operating characteristic curve analysis. CHIP scores in the CM-I group were stratified by symptomatology (asymptomatic, headaches, and paresthesias) and compared via Kruskal-Wallis test with Mann-Whitney U-test with Bonferroni correction ( $p < 0.0167$ ). CHIP was compared with HUI3 (Health Utilities Index Mark 3) via univariate and multivariate linear regression. RESULTS CHIP physical and psychosocial subscores were, respectively, 24% and 18% lower in CM-I patients than in controls ( $p < 0.001$ ); the overall HRQOL score was 23% lower as well ( $p < 0.001$ ). The area under the curve (AUC) for CHIP physical subscore versus presence of CM-I was 0.809. CHIP physical subscore varied significantly with symptomatology ( $p = 0.001$ ) and HUI3 pain-related quality of life ( $R^2 = 0.311$ ,  $p < 0.001$ ). The AUC for CHIP psychosocial subscore versus presence of CM-I was 0.754. CHIP psychosocial subscore varied significantly with HUI3 cognitive- ( $R^2 = 0.324$ ,  $p < 0.001$ ) and emotion-related ( $R^2 = 0.155$ ,  $p = 0.003$ ) quality of life. The AUC for CHIP HRQOL versus presence of CM-I was 0.820. Overall CHIP HRQOL score varied significantly with symptomatology ( $p = 0.001$ ) and HUI3 multiattribute composite HRQOL score ( $R^2 = 0.440$ ,  $p < 0.001$ ).

The CHIP is a patient-reported, CM-I-specific HRQOL instrument, with construct validity in assessing pain-, cognitive-, and emotion-related quality of life, as well as symptomatic features unique to CM-I. It holds promise as a discriminative HRQOL index in CM-I outcomes assessment <sup>1)</sup>.

<sup>1)</sup>

Ladner TR, Westrick AC, Wellons JC 3rd, Shannon CN. Health-related quality of life in pediatric Chiari Type I malformation: the Chiari Health Index for Pediatrics. J Neurosurg Pediatr. 2015 Oct 2:1-10. [Epub ahead of print] PubMed PMID: 26431245.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

[https://neurosurgerywiki.com/wiki/doku.php?id=chiari\\_health\\_index\\_for\\_pediatrics](https://neurosurgerywiki.com/wiki/doku.php?id=chiari_health_index_for_pediatrics)

Last update: **2024/06/07 02:49**

