

POSTER

THE EFFECTS OF CLEFT LIP/PALATE AND SUBSEQUENT REPAIR ON THE PROCESSING OF INFANT FACES

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ABSTRACT

Infant cues, and facial cues in particular, serve an important evolutionary role in facilitating caregiver bonding. Given the biological salience of infant faces, it has been suggested that they may be processed differently than other faces. Research using a variety of neuroimaging techniques (fMRI, MEG, EEG) has demonstrated that Infant faces do indeed elicit enhanced neural processing relative to adult faces. Facial malformations have been shown to impact early infant-caregiver interactions negatively. However, it remains unclear how such facial malformations may impact the early neural processing of these faces. Across two studies, we used electroencephalography (EEG) to investigate adults' early neural processing of infant faces with cleft lip/palate as compared to unaffected infant faces (study 1) and the impact of cleft repair surgery on these neural responses (study 2). The N170 response was significantly larger for infant faces with cleft lip/palate as compared to unaffected infants and infants after repair surgery. The P200 response was significantly reduced for infant faces with cleft lip/palate as compared to unaffected infants and infants after repair surgery. These results suggest that infants' faces with cleft lip/palate are processed differently very early in the perceptual process, particularly with respect to configural processing (N170) and face typicality (P200). These processing differences may contribute to several important aspects of development (e.g., joint attention) and may play a vital role in the previously observed difficulties in mother-infant interactions.