

Quantifying aesthetic outcomes after cleft lip and palate surgery

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Aesthetic outcomes are important to both patient and family post cleft repair surgery. There is a paucity of tools that assessing aesthetic outcomes that do not rely on individual human assessment. Eye-tracking may be a useful tool in assessing outcomes and could be the basis to create a non-human, objective assessment tool. This project will focus on developing a protocol of using eye-tracking on 2D cleft images and assess the effectiveness of this protocol. Furthermore, the difference in eye movement patterns between using cropped (CCUK) and non-cropped images (from other sources) and left and right sided cleft lip and palates will be assessed. Cleft Care UK has a nationally gathered database of cropped cleft lip and palate images. These images will be used to help our comparison between the cropped and un-cropped images. There is future work planned based on this initial project, with the eventual goal of developing an AI based cleft repair outcome assessment tool.