Reviewer's report

Title: 3-D reconstruction of a human foetus with combined holoprosencephaly and synophthalmia

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Reviewer: Joseph Siebert

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I would like to comment briefly on this well-conducted study. In the literature, the distinction is made between cyclopia (single midline orbit) and synophthalmia (fused ocular structures). This fetus is a classic example of cyclopia with midline orbit/fused eye and the commonly associated anomalies of the craniofacial complex and central nervous system. Interestingly, some individuals with holoprosencephaly and cebocephaly or ethmocephaly may manifest two orbits in the anterior cranium, but eyes that fuse across the midline posteriorly (synophthalmia) - see Souza et al, 1990.

The craniofacial changes constitute malformations, as they arise very early in gestation and are the result of abnormal patterning and/or absent anlage. The paper by Kokich et al, 1982 provides additional information on the craniofacial changes of cyclopia.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.