

A Comparison of Genetic Counseling Processes for Fetal Corpus Callosal Anomalies Among Prenatal Service Locations

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Corpus callosum abnormalities (CCA) can be isolated or involve additional neurologic and organ system anomalies. The prognosis of those with CCA both with and without additional anomalies remains controversial in the medical community. CCA can be detected prenatally with imaging studies, such as sonography or fetal MRI, and genetic testing and specialist involvement can also be pursued. However, there is little insight and no guidelines about counseling expectant parents concerning these anomalies. Accordingly, a survey was developed for genetic counselors that have participated in the care of a patient with a fetal CCA in the last 10 years. This survey determined the frequency and type of imaging methods, genetic testing and specialist involvement at respondent prenatal service locations, both for past CCA experiences and a CCA scenario. Perceived knowledge and comfort levels of respondents, regarding CCA associated factors, were obtained. Results demonstrated that ultrasound and karyotype were considered by 100% of respondents, and fetal MRI and chromosomal microarray were considered by over 50% of respondents. Consultation with the specialties of neurology and genetics were considered by over 50% of respondents, and 100% of respondents would pursue some type of specialist consultation regarding CCA. Additionally, respondents with experience at a pediatrics-based fetal care center had significantly higher comfort levels with certain counseling roles, as well as significantly higher perceived importance levels of certain anomalies and impairments, than those with obstetrics-based fetal care center experience. Subsequently, a data set of prenatally diagnosed CCA was analyzed to determine frequencies of imaging methods, genetic testing and specialist involvement. The data set was compiled at a fetal care center that utilizes a pediatrics-based model of care, rather than the traditional obstetrician-based model at many other prenatal service locations. This comparison further contextualized how corpus callosum abnormalities are counseled in a variety of prenatal settings.