

A study of fetal weight and various fetal biometric parameters during the mid-gestational period (14-26 week) for the Gujarati population by autopsy method.

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Abstract:

Introduction: The study of the measurement of various morphometric parameters of the developing fetus is of immense importance to monitor the adequate fetal growth. Various literature regarding the standard reference fetal biometric charts and table for the monitoring of the fetal growth is available which is dependent upon different races, demographic characteristics and nutrition. The aim of the present study was to establish a reference range of the fetal weight and various fetal biometric parameters in the fetuses of the Gujarati population. **Material and Methods:** This study was conducted in the department of Anatomy, B.J. Medical College, Ahmedabad, Gujarat, in collaboration with Department of Obstetrics and Gynecology of Civil hospital, Ahmedabad, Gujarat on 28 fetuses at gestational age from 14 to 26 weeks. The fetuses were studied for various parameters like fetal weight, CRL, CHL and head circumferences. **Results:** There was increase in body weight and CRL, CHL and HC with increasing gestational age. CRL and HC increases at similar rate. CRL and CHL ratio is roughly 2:3. The growth of various parameters were linear. The fetuses of 14 – 18 weeks of gestational age were found to have mean weight, CRL, CHL and HC to be 158.5gm, 138, 212.42 and 153.17 mm respectively whereas the means of the same parameters for the age group of 19 – 26 weeks were 522.94 gm, 206.44, 318.94 and 218.63 mm respectively. **Conclusion:** The present study establishes the standard reference values of fetal weight and various fetal biometric parameters like CRL, CHL and HC for the Gujarati population for second trimester of pregnancy. This could be a very useful tool to gynecologist to have a reference for the age estimation during the antenatal examination as well as to pathologists while performing the fetal autopsies.

Key words: CRL, CHL, Fetal biometry, Fetal weight, Head Circumference (HC).

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