Abstract

There are variable reports of higher or comparable incidence of congenital malformations in babies born after assisted reproductive technology (ART). To study the pattern of congenital malformations in babies born after assisted reproductive technology and the outcome of surgically correctable congenital malformations in these babies. The study was conducted in the Department of Pediatric Surgery, in a tertiary care hospital. It was a cross-sectional study of two years duration. The primary outcome of malformations was compared between the ART and spontaneous conception groups and analyzed by Chi-square/Fischer exact test. Results: The average maternal age (31.7yrs versus 25.8yrs) and average paternal age (35.7yrs versus 27.5 yrs) in the ART group was significantly higher compared to the non-ART group. The mean gestational age was 35.34 weeks in the ART group and 37.8 weeks in the non-ART group. The rate of malformation between ART and non-ART groups (8.5% vs. 2.85%) did not reach statistical significance (p=0.087). There was a significantly higher incidence of preterm births (<37 weeks) in the ART group (80%) in comparison to the non-ART group (23.5%). Majority of babies (57.1%) in the ART group were low birth weight whereas, in the non-ART group, the incidence was 32.1%. An increased risk of prematurity, multiple births and low birth weight in babies born after ART in comparison to the non-ART group was observed. The rates of congenital malformations after ART were slightly higher but not statistically significant compared to the non-ART group. Incidence of congenital malformations after ART is slightly higher but not statistically significant compared to spontaneous conception. Larger studies which include intrauterine deaths due to severe congenital anomaly, still births and first trimester abortion due to chromosomal anomaly are needed to know the true pattern of congenital malformations after ART.

Biography

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