

Relation between seasonal variations and congenital anomalies in Puerto Rico – Radiocápsula RCP/CPR ^[1]

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Calificación:



Abstract Background: Birth defects represent one of the main causes of infant mortality and morbidity around the world. **Objective:** The purpose of this study is to identify seasonal changes in the incidence of various congenital anomalies in our population. **Methods:** We identified all cases of open neural tube defects, cardiac anomalies, cleft lip and palate and gastroschisis of children born in Puerto Rico and reported to the Health's Department Birth Registry Program between January 1995 and December 2005. The conception dates were determined by estimation based on the reported last menstrual period. All deliveries during this same period were recorded and their conception dates estimated in the same manner. The data for each anomaly was separated into 4 groups for each year studied corresponding to the four seasons. The sample was stratified based on the type of anomaly detected and the season when conception took place. **Results:** There is a seasonal pattern in the rate of conceptions in Puerto Rico with the highest incidence during the winter and lowest during the summer months. We detected a statistically significant

increase in the incidence and relative risk during the summer months (using winter as a reference) of conceiving a child with open neural tube defects, cardiac anomalies, or cleft lip and palate. Gastroschisis did not show a statistically significant difference in the rate of conceptions, but there was a tendency towards a higher incidence during spring. Conclusions: The reported seasonal variation in the incidence of open neural tube defects, cardiac anomalies, and cleft lip and palate may be secondary to the effect of yet to be identified teratogens acting on the population at large, or, more likely, to changes in activity and dietary patterns of the population. Reference: De la Vega, A., and López-Cepero, R. (2009). Seasonal variations in the incidence of some congenital anomalies in Puerto Rico based on the timing of conception. Puerto Rico Health Sciences Journal, 28(2), 121-125. Available online at <http://prhsj.rcm.upr.edu/index.php/prhsj/article/viewFile/119/110> [2].

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