Evaluation of visceral anomalies in the progeny of obese and non-obese female rats treated with sibutramin

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Obesity has quickly become a global epidemic, contributing to the increase of cardiovascular problems, diabetes and hypertension, and even resulting in death. In the market, there are drugs that help weight loss like amphetamines. In recent years, sibutramin has been used as an appetite suppressant and metabolism stimulant, especially in the first trimester of pregnancy. To evaluate visceral anomaly frequency in the progeny of obese and control female rats treated with sibutramin. 40 Wistar female rats were used and classified into two groups: non-obese (20 rats) and obese (20 rats). Obesity was stimulated through the intake of hypercaloric diet. In the adult phase, the female rats were treated with sibutramin for 15 days and then mated to normal rats; the treatment continued until the fifteenth day of pregnancy. Untreated groups received only saline dose (0.9% NaCl) and treated groups received sibutramine dose (6 $mg.kg^{-1}$). When treatment with sibutramin started, four groups were formed: non-obese untreated group (control-10 rats), non-obese group treated with sibutramin (10 rats), obese untreated group (10 rats), obese group treated with sibutramin (10 rats). In the afternoon of the twentieth day of pregnancy, the rats were anesthetized and sacrificed to realize the laparotomy. The fetuses were removed and fixed in Bodian solution for visceral anomaly analysis. This study showed that the obese group treated with sibutramin presented a significantly higher amount of fetuses with anomalies (28 fetuses) like dilated trachea, dilated ureter, dilated nasal septum, dilated renal calyx and hydronephrosis when compared to the control group. Sibutramin is related to the incidence of visceral anomalies, which suggests that there is teratogeny in rats due to this drug.

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