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كبير حجم الأجنة في الجرذان الحوامل : دراسة نسيجية و هستوكيميائية للجلد والعضلات والكبد

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**Abstract** : Macrosomia or increased fetal size than normal is one of the major clinical problems that carry health hazards for both mother and fetus. Macrosomia has different causes, however mostly associated with mild hyperglycemia or gestational diabetes. In the present study skin, brown fat, skeletal muscles and liver of macrosomic fetuses of mildly diabetic animals were studied histological and histochemically using light microscope. The main objective is to correlate structural changes in such organs with the increase in fetal body weight above average normal. Normal fetal weight ranged from 3.9 -5.8 gm while macrosomic animals have a weight ranged between 6.5 -6.7 gm . The results showed insignificant increase in the number and thickness of epidermal cell layers, significant increase in dermal thickness due to edema, and increase in surface area occupied by brown fat lobules and significant increase of muscle fiber diameter( hypertrophy) and an increases in inter muscular tissue spaces. Liver parenchyma, showed significant enlargement and vaculation of hepatocytes, dilation of portal veins and hepatic sinusoids. An increase in white cell population within sinusoids was observed in, Giant cell or megakaryocytic cells were also increased. Histochemistry proved increased lipid accumulation mainly in adipocytes of brown fat mass .Hepatocytes also showed significant increase in fat content. . . Conclusions: The present results could be preliminary to demonstrate histological and histochemical changes that may explain the increasing of body weight and size in macrocosmic fetuses of mildly diabetic animals. The results were discussed in view of available literature.

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