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THE ROLE OF ADIPONECTIN IN HUMAN PREGNANCY

MAJID KHANDOUZI[1] & MANAB DEKA[2]

[1]Department of Biological Science, Gauhati University, Assam, India

[2]Head, Department of Biological Science, Gauhati University, Assam, India

ABSTRACT

Adiponectin is a macromolecular complex similar to the members of the C1q and other collagenous homologues. Pregnancy is a unique physiologic state that is associate with profound alterations in maternal metabolic, endocrine and vascular function, designed to ensure the delivery of appropriate energy, the role of the fat-derived hormone. Adiponectin is emerging recognition of the broad array of physiologic processes upon which this adipokine impacts. Adiponectin is secreted by white adipose tissue and it is anti-diabetes, anti-atherosclerosis, anti-inflammation and antitumor activities, which directly link to the high molecular weight. Adiponectin mediates its actions in the periphery via two receptors, AdipoR1 and AdipoR2. Adiponectin receptors are present in many reproductive tissues including the central nervous system, ovaries, oviduct, endometrium and testes. Adiponectin influences gonadotropin release, normal pregnancy and assist reproduction outcomes. Adiponectin, a beneficial adipokine, represents a major link between obesity and reproduction. Higher levels of adiponectin are associate with improve menstrual function and better outcomes in assisted reproductive cycles.

KEYWORDS: Adiponectin, Adiponectin Receptors, Obesity, Reproduction, Placenta, Pregnancy