Reading: a recent article

Prof.Dr.Nuray ARI

- <u>Can J Diabetes.</u> 2017 Dec 8. pii: S1499-2671(17)30334-9. doi: 10.1016/j.jcjd.2017.10.040. [Epub ahead of print]
- Emerging Role of Adipocytokines in Type 2 Diabetes as Mediators of Insulin Resistance and Cardiovascular Disease. Jaganathan R, Ravindran R, Dhanasekaran S.
- Abstract
- Adipose tissue is an enormously active endocrine organ, secreting various • hormones, such as adiponectin, leptin, resistin and visfatin, together with classical cytokines, such as tumor necrosis factor-alpha (TNF- α) and interleukin-6 (IL-6). All these adipocytokines plays significant roles in the regulation of energy metabolism, glucose and lipid metabolism, reproduction, cardiovascular function and immunity. Adipocytokines are significantly regulated by nutritional status and can directly influence other organ systems, including brain, liver and skeletal muscle. Adiponectin plays a key role as an anti-inflammatory hormone. Upregulated expression of resistin, vaspin, apelin and TNF- α plays a significant role in induction of insulin resistance linked with obesity and type 2 diabetes. Ghrelin, the circulating peptide, has been found to stimulate appetite and regulate energy balance. Thus, it can be considered 1 of the candidate genes for obesity and type 2 diabetes. Omentin is a novel adipokine produced by visceral adipose tissue. Circulating levels of omentin are decreased in insulin-resistant states, for example, in obesity and diabetes. IL-6 plays a vital role in regulating the accumulation of lipids intramyocardially. Based on the biologic relevance of these adipocytokines, they can no longer be considered as energy storage sites alone but must also be considered in metabolic control. Hence, the present reviewsummarizes the regulatory roles of adipocytokines in diabetes linked with obesity.