



The Pathophysiology of Diabetes Mellitus is Complex and Incompletely Understood

Valeria Velluti*

Department of Endocrinology, Royal University, Bhutan

INTRODUCTION

Gestational diabetes means the diabetes which occurs during pregnancy. It turned out to be an abnormal metabolic state associated with systemic damage to the vascular bed. Cumulative evidence also indicates that the endocrine system is intact in patients with diabetes mellitus. It is not clear whether the observed endocrine changes represent a primary defect or reflect the effects of impaired insulin action and impaired carbohydrate and lipid metabolism on the hormonal milieu. Hypothalamus, pituitary, adrenal, thyroid, parathyroid, vitamin D system, the function of the entire endocrine system, including the function of hormones from the gonads, and endocrine function of adipose tissue are impaired. Good metabolic control and insulin therapy can reverse some of these abnormalities. The extent to which these changes in the endocrine system contribute to the vascular pathology observed in diabetic patients and whether some of the abnormalities observed in the endocrine system reflect the cellular defects underlying the diabetic syndrome remain to be investigated as not yet been elucidated.

DESCRIPTION

In the current overwhelming era of polypharmacy, the dynamic and delicate balance of the endocrine system can easily be disturbed by disruptive pharmaceutical agents such as drugs. Drugs can cause endocrine abnormalities through a variety of mechanisms, including direct alterations in hormone production, altered regulation of feedback axes, hormone transport, hormone binding and signaling, and similar alterations in counter-regulatory hormonal systems. Additionally, drugs can interfere with hormone testing, leading to false test results that prevent clinicians from making a correct diagnosis. The purpose of this review is to cover the topical problem drug-in-

duced endocrinopathy presented at the 2018 single-themed annual Combo Endo course. This challenging part of endocrinology has been continually expanded, especially in the last decade, by new tumor therapeutics that target new molecular pathways in the course of malignancy. In this new context of drug-induced endocrinopathies, clinicians must be aware that drugs can induce endocrine abnormalities through multiple mechanisms, mimicking different clinical scenarios. Therefore, it is of great importance for physicians not only to detect drug-induced hormonal and metabolic abnormalities promptly, but also to address therapeutic issues for timely intervention.

CONCLUSION

Normal water balance with tight maintenance of plasma osmolality depends on adequate water conservation (*via* ADH release and action) and additional water intake when appropriate (triggered by thirst). CNS pathologies (including trauma) commonly affect the hypothalamus and pituitary stalk, resulting in impaired osmoreceptor function or decreased ADH production or release, leading to diabetes insipidus (a life-threatening with possible abnormal fluid and electrolyte status). Assessing the relationship between plasma and urine osmolality and plasma ADH levels usually leads to an accurate diagnosis. Central diabetes insipidus is effectively treated by replacing free water deficits and exogenous ADH analogues.

ACKNOWLEDGMENT

None.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

Received:	01-November-2022	Manuscript No:	IPJDRE-22-15034
Editor assigned:	03-November-2022	PreQC No:	IPJDRE-22-15034 (PQ)
Reviewed:	17-November-2022	QC No:	IPJDRE-22-15034
Revised:	22-November-2022	Manuscript No:	IPJDRE-22-15034 (R)
Published:	29-November-2022	DOI:	10.36648/IPJDRE.6.6.33

Corresponding author Valeria Velluti, Department of Endocrinology, Royal University, Bhutan, E-mail: valeria@gmail.com

Citation Velluti V (2022) The Pathophysiology of Diabetes Mellitus is Complex and Incompletely Understood. J Diab Res Endocrinol. 6:33.

Copyright © 2022 Velluti V. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited