

Effects of Gestational Diabetes Mellitus on the Functionality of Pregnant Women's Rectus Abdominis Muscle as Long-term Predictor for Urinary Incontinence

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Gestational diabetes mellitus (GDM) is a risk factor for urinary incontinence (UI) two-year post caesarean section (CS) and clinical findings of high incidence of UI two years after GDM plus SP-UI, role of GDM in the pathophysiological development of UI is unclear. Experimental results on urethral and rectus abdominis muscle (RAM) from diabetic pregnant rats reveal a variety of abnormalities in muscles involved in UI, opened the possibility for human *in vivo* multidisciplinary research to investigate similar hyperglycaemic myopathy in GDM skeletal muscles. To determine possible adverse effects of hyperglycemia on RAM function in pregnant women with and without GDM using Myography. During CS, 1 cm RAM was collected from 12 primiparous women with and without IU (10 normoglycemics incontient and 2 hyperglycemic-UI) and placed in Krebs solution at 4°C. Changes in isometric tensile strength have been recorded using LabChart-7 software coupled with PowerLab Data Acquisition System (AD Instruments) software for muscular responses capture and storage. The muscle mechanical response was expressed as percentage of maximal contraction induced by electrical stimulation (Grass Model-S48). After electrical stimulation, we obtained results of the RAM function during one hour. We noticed that the RAM of pregnant women did not sustain the electrical response. We do not have enough data to compare the two groups, but it can be confirmed that the myography is effective in evaluating the RAM function. Our primary findings confirmed that myography is a viable technique to analyze the functionally of the RAM in pregnant women, in a controlled way.

Biography

He holds a Medicine degree, medical residences in Family Medicine and Cardiology and Master's Degree in Emergency and Medical Education from the Institute of Medical Sciences, Cuba. He awarded with PhD in Physiologypatology in Clinical Medicine, Faculty of Medicine-UNESP, Brazil. Currently, he is a postdoctoral student at Gynecology and Obstetrics department, Faculty of Medicine-UNESP, Brazil working on Gestational diabetes. He develops research in the area of Cardiology, mainly on the ventricular function and remodeling in experimental models of heart failure. He has experience in medical care and teaching. He published 8 articles in journals and 10 abstracts in conference procedings.

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