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Physical therapy and female sexuality in PCOS treatment

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Female sexuality is controlled by psychosocial, biological and physical factors. Women with Polycystic ovarian syndrome (PCOS) may feel like losing their feminine identity. This change could have a negative impact in quality of life, decreasing self-worth and sexual satisfaction. Obesity, hirsutism, acne, irregularity menses and subfertility are common factors for poor body image and affecting their sexuality, they may found themselves significantly less sexually attractive. In several studies, we find women with PCOS have worse sexual function and self-assessment of health condition in comparison to controls. Pelvic floor muscle rehabilitation cannot change their complains about PCOS and will not have any effect in this syndrome; however, this treatment can help these women understand how their intimacy works. They will have a better knowledge of their body and will learn how to control their pelvic floor muscles, so they will be able to have more pleasure and to give more pleasure to their partner. It will increase their self-worth and self-assurance that certainly will improve their sexual satisfaction. Pelvic floor muscle rehabilitation also increases vaginal lubrication, treat pelvic pain and dyspareunia.

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Vitamin D supplementation decreases TGF-β1 bioavailability in PCOS: A randomized placebo-controlled trial

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Background: There is an abnormal increase in TGF-β1 bioavailability in women with polycystic ovary syndrome (PCOS), which might play a role in the pathophysiology of this syndrome. Vitamin D (VD) supplementation improves various clinical manifestations of PCOS and decreases TGF-β1 levels in several diseases including myelofibrosis.

Aim: The objective of the study was to determine the effect of VD supplementation on TGF-β1 bioavailability in VD-deficient women with PCOS and assess whether changes in TGF- β1/soluble endoglin (sENG) levels correlate with an improvement in PCOS clinical manifestations.

Method: Prospective, randomized, placebo-controlled trial was used. 68 VD-deficient women with PCOS who were not pregnant or taking any exogenous hormones were recruited between October 2013 and January 2015. Forty five women received 50000 IU of oral vitamin D3 and 23 women received oral placebo once weekly for eight weeks. Serum TGF-β1, sENG, lipid profile, testosterone, dehydroepiandrosterone sulfate, and insulin resistance were measured. The clinical parameters were evaluated before and two months after treatment.

Results: The VD level significantly increased and normalized after VD supplementation (16.3±0.9 [SEM] to 43.2±2.4 ng/mL; P<.01), whereas it did not significantly change after placebo. After the VD supplementation, there was a significant decrease in the following: the interval between menstrual periods (80±9 to 60±6 d; P=.04), Ferriman-Gallwey score (9.8±1.5 to 8.1±1.5; P<.01), triglycerides (138±22 to 117±20 mg/dL; P=.03), and TGF-β1 to sENG ratio (6.7±0.4 to 5.9±0.4; P=.04). In addition, the TGF-β1 to sENG ratio was positively correlated with Δ triglycerides (r=0.59; P=.03).

Conclusions: VD supplementation in VD-deficient women with PCOS significantly decreases the bioavailability of TGF-β1, which correlates with an improvement in some abnormal clinical parameters associated with PCOS. This is a novel mechanism that could explain the beneficial effects of VD supplementation in women with PCOS. These findings may support new treatment modalities for PCOS, such as the development of anti-TGF-β1 drugs.

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