Abstract


Efficacy of natural vitamin E on oligospermia and athenospermia: a prospective multi-centered randomized controlled study of 106 cases.

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OBJECTIVE: To explore the therapeutic effect of natural vitamin E (VitE) on oligospermia and athenospermia in infertile men.

METHODS: We conducted a prospective multi-centered randomized controlled study on 64 infertile men with oligospermia (31 as controls treated with Tamoxifen 10 mg bid and 33 as experimental cases treated with Tamoxifen 10 mg bid + VitE 100 mg tid) and 42 cases of athenospermia (20 as controls treated with Levocarnitine oral solution 1 bottle bid and 22 as experimental cases treated with Levocarnitine oral solution 1 bottle bid + VitE 100 mg tid). We compared the control and experimental groups in sperm concentration and percentage of progressively motile sperm before and 3 months after medication, as well as the rate of clinical pregnancy and adverse events.

RESULTS: Among the oligospermia patients, the average sperm concentrations in the control and experimental groups were 8.00 x 10(6)/ml and 10.66 x 10(6)/ml before medication (P > 0.05). After medication, the numbers of cases evaluated as with no, slight, moderate and marked improvement in sperm concentration were 10 and 9 (P > 0.05), 16 and 14 (P > 0.05), 5 and 4 (P > 0.05) and 0 and 0 (P > 0.05); and the numbers of natural pregnancies were 0 and 6 in the control and experimental groups (P < 0.01). Among the athenospermia patients, the average rates of progressively motile sperm were 17.00% and 18.10% in the control and experimental groups before medication (P > 0.05). After medication, the numbers of cases evaluated as with no, slight, moderate and marked improvement in the percentage of progressively motile sperm were 7 and 2 (P < 0.01), 4 and 8 (P < 0.01), 3 and 2 (P > 0.05) and 1 and 1 (P > 0.05), and the numbers of natural pregnancies were 5 and 9 in the two groups (P > 0.01), but no adverse events were observed.

CONCLUSION: As a safe and effective adjuvant agent for the treatment of oligospermia and athenospermia, vitamin E can improve sperm concentration, the percentage of progressively motile sperm, and finally the rate of natural pregnancy.

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