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TITLE

HOW LONG WE SHOULD TREAT IDIOPATHIC ASTHENOZOOSPERMIA WITH L-CARNITINE

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ABSTRACT

Objective: Carnitines play an important role in generating cellular energy. The aim of our study was assessment of time interval for sperm motility improvement with L – carnitine empiric treatment.

Materials&methods: We studied 43 idiopathic asthenozoospermic (total sperm motility less 40%, progressive motility less 32%, absence of sperm antibodies by MAR test) patients (mean age 26,7). At least two baseline semen analyses were done at two weeks intervals by the same specialist.

In all patients L – carnitine 2 gr orally per day for 3 months, semen samples were collected at baseline, after 2 weeks, 1 month and 3 months.

Results: According to our results we divided patients into two groups: responders for L – carnitine treatment (group I – 20 patients) and nonresponders (group II – 23 patients). The difference in sperm motility improvement between both groups was seen after two weeks of treatment - baseline progressive motility increased till 20 % (mean increase 6%) in group I and was unchanged 14% in group II (difference was statistically significant $p < 0,001$). After 1 month in responders group we saw the peak of progressive motility improvement till 23% (mean increase from baseline 9%), semen parameters in group II still were unchanged ($P < 0,001$). At this moment we decided to stop L- carnitine administration blindly in half of responders, continue in another half till 3 months, and also continue in nonresponders group.

At final semen samples, progressive motility in responders group was 24% in half who finished 3 months treatment, and 22% who stopped after 1 month ($p=0,1$). In nonresponders group progressive motility a little bit decreased - till 12%.

Conclusions: So 1 month of L- carnitine administration is enough to see the benefits of this treatment.

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