

Case Report: Oligoasthenoteratozoospermia, Treatment with Acupuncture

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Abstract: *Background - OAT or Oligoasthenoteratozoospermia is one of the most common causes of male infertility. Acupuncture is very often used to enhance male fertility. With acupuncture the sperm quality and production can be increased, hormonal factor can be corrected by restoring balance to the entire body and mechanical blockages can be dissolved or reduced.*

Purpose - The main purpose of this work is to show a case of OAT, the results before and after the treatment with acupuncture and that acupuncture is totally safe and effective treatment in the cases of man's infertility.

Methods - The patient is 35 year old male diagnosed with idiopathic OAT according to the criteria of WHO and KRUGGER. He has done 7 treatments in a period of 2 weeks in a clinic for Traditional Chinese Medicine and acupuncture.

Results - The concentration and total number of spermatozoa were significantly increased. The percentage of total motility and rapidly progressive motility was increased by 35% and the normal morphology by 72%, with 80% of sperm with intact membranes.

Conclusion - Acupuncture is moving the whole body toward better health, so the sperm is in better health too. Healthier bodies make healthier sperm.

Key words – male infertility, oligoasthenoteratozoospermia, treatment, acupuncture, acupoints

Introduction

Infertility has long been focusing on women, but men also have a significant role in the ability of a couple to conceive. [4] Men are responsible for 47% of the infertility problems. [6] OAT is a common cause of male infertility. Although the sexual function may be normal, there is a reduced count of mainly dysfunctional/dysmorphical spermatozoa.

The term oligoasthenoteratozoospermia is used when all 3 factors are present: oligozoospermia (reduced sperm count), asthenozoospermia (poor sperm motility) and teratozoospermia (abnormal sperm morphology).[3] The quality of semen can be

affected by drinking alcohol, smoking cigarettes or marijuana, hormone preparations, medications, varicocele, infections, genetics or it can be idiopathic. [1] Acupuncture is very often used to enhance male fertility. According to Chinese medical theory, the sperm will be of better quality by increasing the male partner's whole body health. Sperm quality and production can be increased by acupuncture, hormonal factor can be corrected by restoring balance to entire body and mechanical blockages can be dissolved or reduced. [4]

Idiopathic OAT affects 30-40% of all cases and may be due to several causes including: oxidative stress (free radicals of oxygen fragments spermatid DNA which reduce fertilizing ability of spermatozoa) or oestrogenic environment (pollution and food have hormonal disruptors that may cause hormonal disturbances that are harmful to sperm). [2]

Material and methods

Acupuncture treatment has been done in clinic for Traditional Chinese Medicine and Acupuncture in Skopje by MD, PhD, TCM specialist. The patient is a 35-year-old man, diagnosed with oligoasthenoteratozoospermia according to the criteria of WHO and KRUGGER. The patient noticed the condition two years ago. The condition is idiopathic, not genetic, no infections were diagnosed and no other symptoms were present. The patient is non-smoker, active and hard-working 12-13 hours a day. The patient underwent 7 treatments in a period of 2 weeks. The treatments were done in a closed room on temperature of 25°C with duration of 35-40 minutes. The 0.25x25mm dimension sterile needles were made by Wuijuiang City Medical Health Material Co., Ltd. The acupoints used in the treatment are: DU20 (BaiHui), N12 (ZhongWan), ST25 (TianShu), RN6 (QiHai), RN4 (GuanYuan), ST26 (WaiLing), RN1 (HuiYin), DU1 (ChangQiang), BL32 (CiLiao), BL28 (PangGuangShu), LI4 (HeGu), PC6 (NeiGuan), ST36 (ZuSanLi), GB34 (YangLingQuan), SP9 (YinLingQuan), SP6

(SanYinJiao), LR3 (TaiChong), KI3 (TaiXi) and KI1 (YongQuan).

According to Traditional Chinese Medicine, when there's a problem with infertility, it's associated with Kidney disorder (Yan or Ying deficiency), Liver Qi-energy stagnation or Heart and Spleen deficiency and all the treated points are located on these meridians. On these points, acupuncture tonifies Kidneys, tonifies and sedates the Liver Qi, dispels stagnation and resolves masses, tonifies deficiency and strongly moves the Qi and blood in the body in order to remove stagnation and alleviate pain, increases blood flow to the reproductive organs, balances the endocrine system and counters the effects of stress and cortisol by releasing endorphins in the brain. [10]

Before coming to our clinic, the patient made 1 semen analysis test and 1 control test-after the last acupuncture treatment. The 1st test was done on 28.09.2015 in Newborn clinic center for fertility and andrology. After 5 day abstinence, by masturbation as a sperm sampling method – patient had the following results shown on the table 1. The patient was diagnosed with male infertility due to Oligoasthenoteratozoospermia (WHO/KRUGGER criteria). After the acupuncture treatments, the patient did another control semen analysis on 08.10.2015 (standard test by WHO criteria, 5th edition, 2010) in Avicena laboratory and the after-treatment-results were completely satisfying: brought-in sperm material analysis - ejaculation with complete liquefaction, without presence of mucous fibers, absence of oligozoospermia

Results and discussion

Table1. Results from semen analysis before and after acupuncture

Values	Before acupuncture	After acupuncture	Expected values
Color & Appearance	Opaque, Homogenous, Normal viscosity	Light grey opalescent, viscous	Light grey opalescent, viscous
pH	8	8	> 7.2
Liquefaction	10 min	Complete	< 30 min
Volume	3ml	5.2 ml	1.2 and more
Leucocyte	/	4,2 x 10 ⁶ / ml	< 2 x 10 ⁶ / ml
Concentration	2x10 ⁶	38,4 x 10 ⁶ / ml	15 x 10 ⁶ / ml and more
Total number	6x10 ⁶	199,7 x 10 ⁶	39 x 10 ⁶ or more
Total motility	25%	60%	> 40 % A and B > 32 %
A (rapidly progressive motility)	0%	35 %	
B (Slowly progressive)	10%	15 %	
C (Non progressive)	15%	10 %	
D (Immotile)	75%	40 %	> 14% normal 5 – 14 % good < 4 % bad
Normal morphology	3%	75 %	
Amorphous heads anomaly	5%	10%	
Tail anomaly	13%	15%	
Vitality	No such information	80 % sperm with intact membranes	> 58 % sperm with intact membranes
Agglutination	/	moderate	<5%

or asthenozoospermia (with a moderate degree of agglutination of the sperm), with normal ejaculation volume and viscosity. Note: increased presence of leukocytes. Early studies show that leukocytes have a positive effect on semen quality. Kiessling in his study found an improvement in sperm motility in semen samples with a leukocyte concentration of > 2x10⁶/ml. [8] In our case the patient have 4.2x10⁶/ml leukocytes. From the results in the table, there are significant differences

between the tests before and after the acupuncture treatments. The volume of the semen is associated with fertility [9] and in this case it was increased. The concentration and total number of spermatozoa were significantly increased, (and because the fewer or lower sperm concentration may impair fertility), this is an excellent result that shows the acupuncture has an actual effect. [7] The volume of the sperm before the treatment was 3ml and after the treatment 5.2ml. The concentration of the

sperm before was 2x10⁶ml and after 38,4x10⁶ml. The total number of spermatozoa before was 6x10⁶ and after 199,7x10⁶. The total motility before was 25% with 0% rapidly progressive motility and after the treatment 60% total motility with 35% of rapidly progressive motility. Before the treatment 3% of the spermatozoa was with normal morphology and 75% after the treatment. The percentage of total motility and rapidly progressive motility was increased by 35% and the normal morphology by 72%, with 80% of sperm with intact membranes. (A man can have a normal or high sperm count, but if his sperm motility is low, it hinders his ability to conceive.)[5]

Another study done by Gurfinkel E. et al., showed that the treatment of patients with oligoasthenoteratozoospermia without apparent cause using acupuncture and moxa techniques can positively influence semen quality, once it improves semen morphology. The possible mechanism by which acupuncture improves the sperm morphology may include its possible action through the nervous system.

Acupuncture points are areas histologically differentiated, capable of generating an action potential which is conducted by the neural fibers A delta and/or C. This stimulus at the posterior column medulla level can create a somatovisceral reflex arc or climb to superior centers, such as the reticular formation, thalamus and cerebral cortex. The response can be probable testicle and epididymis vasodilation. [6]

Conclusion

Acupuncture is safe, effective treatment in treating oligoasthenoteratozoospermia, as it increases both quality and quantity of sperm as well as male fertility, furthermore stimulating body's natural ability to heal itself, thus improving physical and emotional well-being. [2]

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