

BACKGROUND

Male infertility is responsible, alone or in combination with the female factor, for about 50% of couple infertility. Often there is not a clear etiology.

Some studies have suggested that acupuncture can improve seminal parameters in men affected by idiopathic subfertility. Siterman *et al.* showed prospectively a significant improvement in sperm number, motility and ultrastructure in subfertile males treated with acupuncture compared with untreated controls.

Pei *et al.* showed a significant increase in the percentage of spermatozoa without ultrastructural defects in 28 subfertile males treated with acupuncture compared with 12 untreated controls.

Finally, Dieterle *et al.*, in a prospective randomized single-blind study showed that true acupuncture significantly improved sperm motility in 28 subfertile males compared with 29 males treated with placebo acupuncture.

PURPOSE OF THE STUDY

The purpose of this study was to examine the effectiveness of an acupuncture protocol, based on Chinese Classical Medicine, on seminal parameters of subfertile men.

METHODS

PATIENTS

We treated 6 consecutive infertile males, who were referred to the Acupuncture Outpatient Clinic of the Endocrine Unit, Tor Vergata University in Rome, Italy., from March 2008 to June 2009.

Age range was 37-44 (mean 39.1) years.

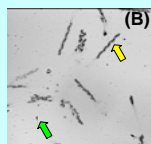
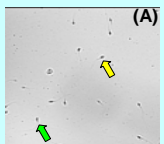
All endocrine and metabolic parameters were in the normal range.

SEMEN SAMPLE ANALYSIS

Semen values were considered abnormal when:

- ❖ number was less than 20 M/mL (oligozoospermia)
- ❖ motility was less than 50% (asthenozoospermia)
- ❖ atypical forms were more than 70% (teratozoospermia)

The Superimposed Image Analysis System (SIAS) was used to assess sperm motility parameters.



(A) Single frame modality
(B) Superimposed modality at 21 frames/sec

The green arrow points to a nonmotile sperm, while the yellow arrow points to a sperm with progressive motility.

Semen samples were analyzed according to WHO guidelines.

All subjects carried out two semen analyses, before and after the treatment. The mean value was considered for each seminal parameter.

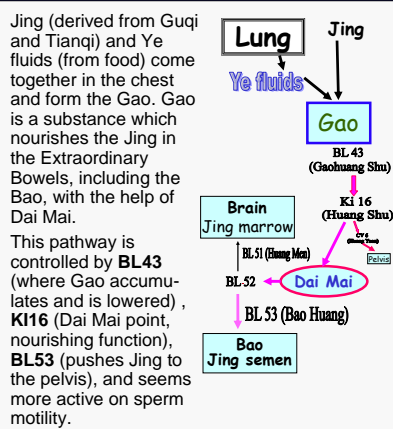
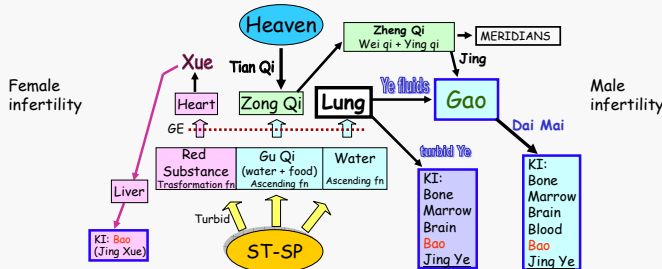
ACUPUNCTURE

One cycle of acupuncture consisted of 8 weekly sessions of acupuncture. Sterile disposable acupuncture needles (0.25x25mm) were inserted to a depth of 1/2 to 1 cun and were left in place for 25 min without manipulation.

The following acupoints were needed in all patients: BL 29, BL30, BL32. In case of oligozoospermia the acupoints chosen were LI16, KI11, ST36; in case of asthenozoospermia the acupoints chosen were KI16, BL43, BL53.

Acupoints were chosen according to the Daoist oral teachings of the Jin-Ye fluid pathophysiology as explained by Master Jeffrey Yuen.

Briefly, semen originates from Jing and Ye fluids, while the female egg originates from Jing and Blood. Jing corresponds to Kidney Yin, and is nourished mainly by the Lung through different pathways.



Jing-semen can also be nourished by Blood, through the Huatuo points. In the pelvis the Liao points correspond to the Huatuo points, and BL32 is the point that is very frequently used in Traditional Chinese Medicine for pelvic problems.

RESULTS

After one acupuncture cycle (8 weeks), the seminal parameters changed as follows:

	Sperm number (x10 ⁶ /mL)		Fast Forward Motility 2 h (%)		Atypical forms (%)	
	before	after	before	after	before	after
Patient 1	5	3	0	0	96	99
Patient 2	11	13	18.5	25.9	76	72
Patient 3	7	4	0	0	96	99
Patient 4	78	32	18.7	27.9	67	67
Patient 5	0.2	5	0	2.3	99	92
Patient 6	43	32	20.9	25.8	64	62
Mean	24.0	14.8	9.7	13.6	83	81.8
P value		0.28		0.05		0.44

These preliminary results show that in 3 patients (no. 2, 4, and 6) there was an improvement of sperm progressive motility. This improvement was not statistically significant, probably due to the small sample size. These patients had fewer atypical forms.

No side effects were noted, except for rare minor bleeding at the site of needle insertion.

CONCLUSIONS

This study suggests that this acupuncture protocol could improve sperm motility in male patients with idiopathic subfertility.

Other protocols which influence other parts of the Ye fluid pathways and/or protocols more in tune with the sperm formation cycle (which takes 72 days to mature) could be more effective

Acupuncture could be a safe adjuvant treatment for idiopathic male subfertility. Further studies are needed to understand the mechanisms involved.

BIBLIOGRAPHY

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Siterman S, Eltes F, Wolfson V, Zabludovsky N, Bartoov B. Effect of acupuncture on sperm parameters of males suffering from subfertility related to low sperm quality. *Arch Androl* 1997; 39:155-61.