



UroGold II: Οι σημαντικότερες δημοσιεύσεις της χρονιάς
Λειτουργική Ουρολογία - ΚΥΠ / Ανδρολογία
Συντονιστές: Απόστολος Αποστολίδης & Φώτης Δημητριάδης

Ανδρολογία: Δημήτρης Καλυβιανάκης

Δήλωση συμφερόντων

Καμία

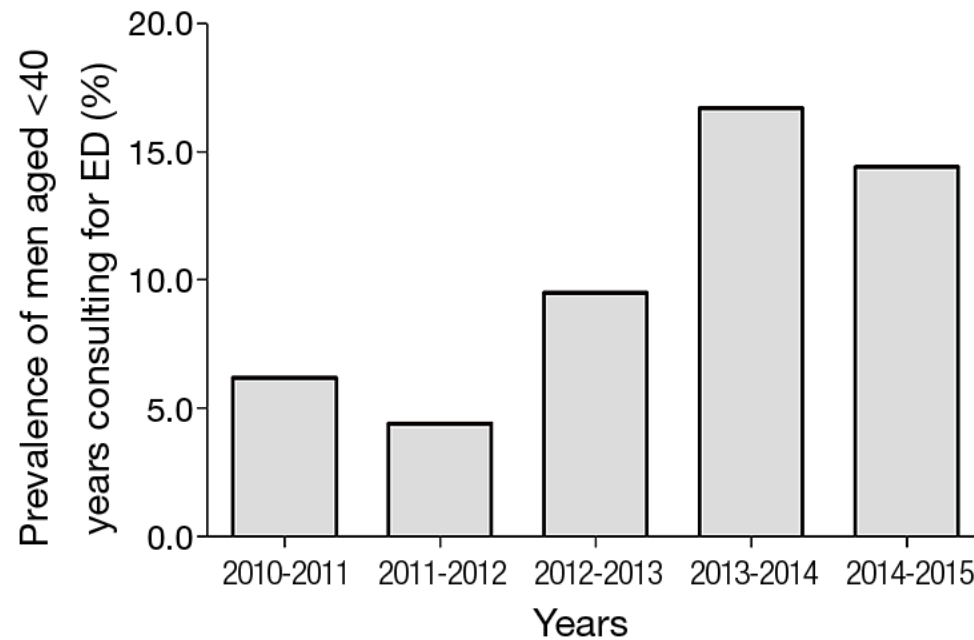
Erectile dysfunction in fit and healthy young men: psychological or pathological?

Giulia Rastrelli¹, Mario Maggi^{1,2}

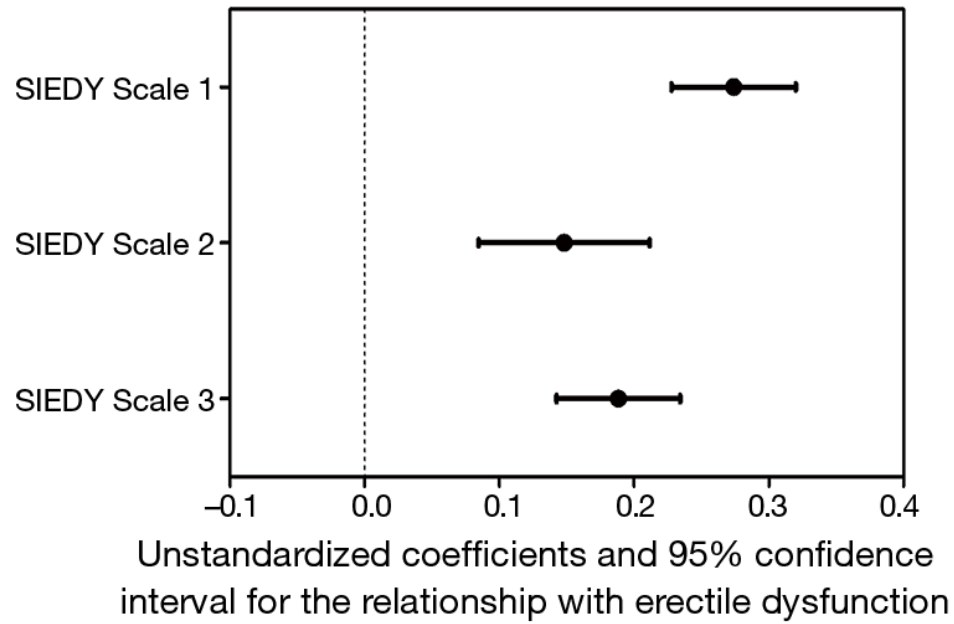
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n=1.873 άτομα

Ηλικία: 18-44



Παθοφυσιολογία

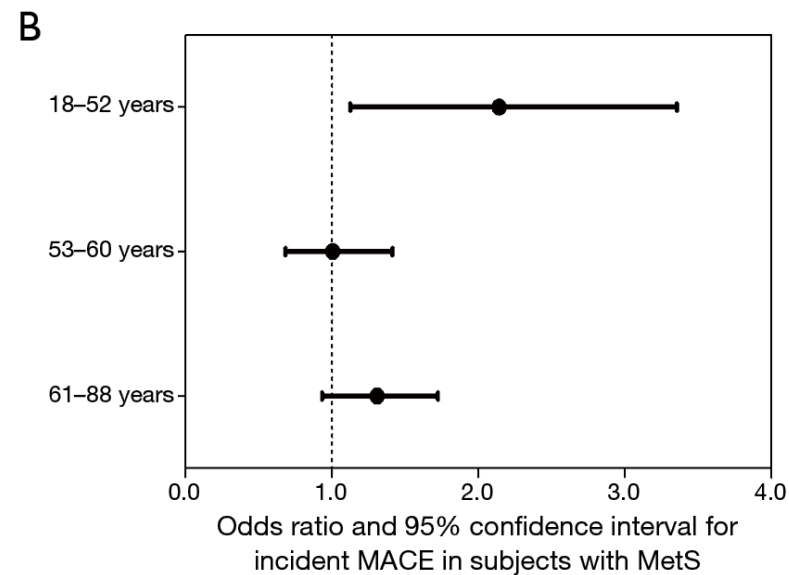
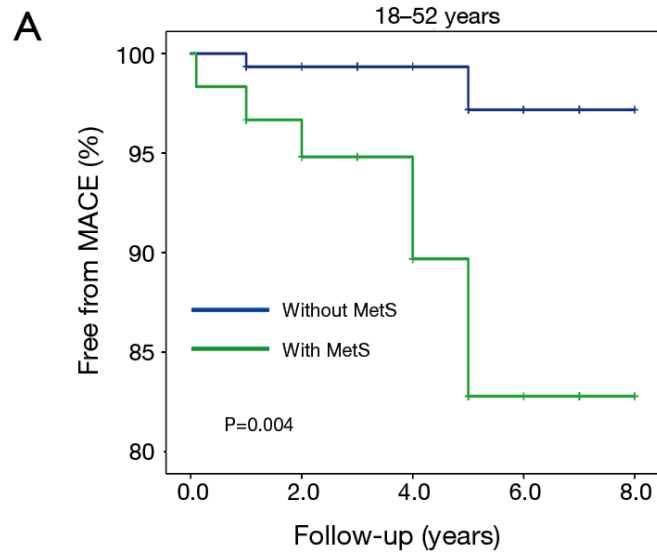


1. Οργανική
2. Σχέσης
3. Ψυχογενής



Οργανικά αίτια

- Μεταβολικά και καρδιαγγειακά αίτια



MACE: Μείζων καρδιαγγειακό συμβάν

MetS:(glycaemia ≥ 100 mg/dL, triglycerides ≥ 150 mg/dL, HDL < 40 mg/dL; blood pressure $\geq 135/80$ mmHg, waist circumference > 102 cm)

Οργανικά αίτια

- **Ενδοκρινολογικά**

Μόνο Τεστοστερόνη

4.890 άτομα: 19,6% και 29,4% ασθενείς είχε ολική T κάτω 10,4 και 12 nmol / L, αντίστοιχα

Νέα άτομα: ↓ αυθόρμητη στύση, ↓ σεξουαλικές σκέψεις, χειρότερο μεταβολικό προφίλ

- **Νευρολογικά αίτια**

Κακώσεις σπονδυλικής στήλης , MS

Ψυχιατρικά αίτια

Κατάθλιψη, άγχος, χρήση SSRI

Προβλήματα σχέσης

Oral therapy for Peyronie's disease, does it work?

Brittani Barrett-Harlow, Run Wang

University of Texas Medical School at Houston, Houston, TX, USA

Table 1 Oral agents for Peyronie's disease

Oral therapy	Mechanism of action	Notable side effects
POTABA	Decreases fibrosis and inhibits collagen formation by decreasing serotonin levels, increasing monoamine oxidase activity and inhibiting fibroblast glycosaminoglycan secretion	Acute hepatitis, hypoglycemia, GI distress, rash
Vitamin E	Inactivates free radicals, reduces oxidative stress	Cerebrovascular events, GI distress, headache, dizziness
Colchicine	Depolymerizes tubulin; inhibits cell mitosis, leukocyte adhesion and collagen transport	Nausea, diarrhea, abdominal pain, aplastic anemia
Tamoxifen	Modulates TGF- β release from fibroblast to diminish fibrogenesis	Hot flashes, ED, GI distress, alopecia, thromboembolism, pancytopenia
Carnitine	Inhibits acetyl coenzyme-A; increases mitochondrial respiration causing decrease in free radicals	GI distress, seizure, hypotension
Procarbazine	Alkylating chemotherapy agent	Cytotoxicity, myelosuppression, hepatotoxicity, fatigue, CNS disturbance, GI distress
Omega-3 fatty acids	Anti-inflammatory agent by limiting effects of eicosanoids	GI distress, fishy breath
PDE-5 inhibitors	Increases cGMP and nitric oxide causing fibroblast apoptosis and inhibition of collagen synthesis/deposition	Headaches, erections, dizziness, flushing, heart burn, blue vision, myalgia
Pentoxifylline	Phosphodiesterase inhibitor; prevents fibroblast proliferation and collagen/elastin deposition; increases fibrinolytic activity	Fatigue, GI distress, flushing, dizziness, headache

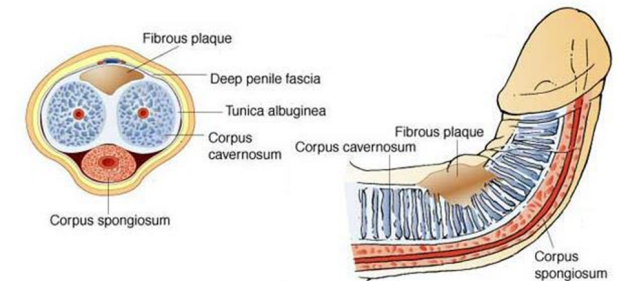


Table 2 Studies of PDE-5 inhibitor treatment for Peyronie's disease

Study	Design	N	Therapy	Duration	Outcome	Level of evidence
Chung <i>et al.</i> , 2011	Retrospective review of prospective database	65	2.5 mg tadalafil or placebo	6 months	Tadalafil showed statistically significant improvement in IIEF score. Sixty nine percent of tadalafil patients showed resolution of septal scar on PDDU (most patients in this study did not have penile curvature)	IV
Ozturk <i>et al.</i> , 2014	RCT-unblinded, not placebo controlled	39	50 mg sildenafil daily or 400 IU vitamin E daily	3 months	Significant improvement in plaque volume and curvature in both groups (assessed by PDDU); differences between both groups were not statistically significant; sildenafil showed statistically significant improvement in IIEF scores and pain reduction compared to vitamin E alone	II

N, number of participants in study; RCT, randomized control trial; PDDU, penile duplex Doppler ultrasound.

Table 3 Studies of pentoxifylline treatment for Peyronie's disease

Study	Design	N	Therapy	Duration	Outcome	Level of evidence
Safarinejad <i>et al.</i> , 2010	RCT—double blind, placebo controlled	228	400 mg pentoxifylline twice daily compared to placebo	6 months	Significant improvement in penile curvature and plaque volume as assessed by PDDU; improvement in IIEF scores and significantly less progression of disease compared to placebo	II
Smith <i>et al.</i> , 2011 (36)	Retrospective cohort study	71	62 patients received 400 or 800 mg of pentoxifylline 3 times daily; nine patients received vitamin E or no treatment	1 year	Statistically significant stabilization or improvement in calcium burden within plaque, as assessed by ultrasound, in pentoxifylline arm	IV
Alizadeh <i>et al.</i> , 2014	Quasi experimental	90	30 patients received pentoxifylline 400 mg 3 times daily; the remaining patients were subjected to intralesional injections or a combination of treatments	6 months	26.7% curvature reduction, 30% plaque size reduction, 73% pain reduction. No clear definition on how outcomes were objectively measured	IV

Νόσος Peyronie – PDE5i – πεντοξυφυλλίνη



The Current Status of Stem-Cell Therapy in Erectile Dysfunction: A Review

Amanda B Reed-Maldonado, Tom F Lue

Department of Urology, University of California San Francisco, CA, USA

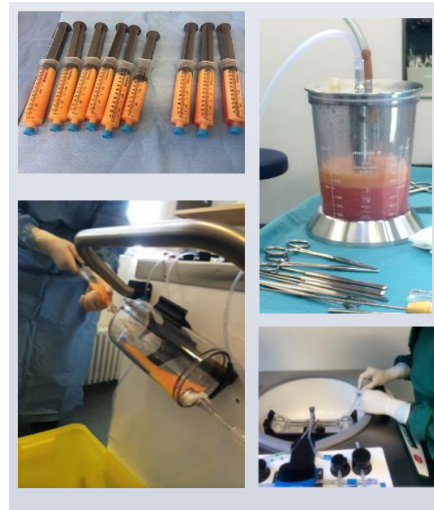


Table 1. Summary of the 4 published clinical trials on stem-cell therapy for ED

First author (year)	Number of men	Cause of ED	Treatment	Assessment	Results
Bahk (2010) [53]	7	Diabetes	Umbilical blood SC	IIEF-5, SEP, GAQ	Improved rigidity in 2/7, able to penetrate with PDE5i
Levy (2016) [67]	8	Organic	Placental-derived SC	PSV, IIEF	3/8 improved erection; IIEF change not significant
Haahr (2016) [52]	17	5~18 months after radical prostatectomy	Adipose-derived SC	IIEF-5	8/11 continent men and 0/6 incontinent men recovered erection
Yiou (2016) [51]	12	22 months after radical prostatectomy	Bone marrow mononuclear cells	IIEF-15, EHS, color Doppler ultrasound	1/12 hard erection; 9/12 needed ICI, PDE5i, or VCD. Improved EHS and IIEF

ED: erectile dysfunction, SC: stem cell, IIEF: international index of erectile function, SEP: Sexual Encounter Profile, GAQ: Global Assessment Question, PSV: peak systolic velocity, EHS: erectile hardness score, PDE5i: phosphodiesterase type 5 inhibitor, ICI: intracavernous injection, VCD: vacuum constriction device.

Ανοσολογική απάντηση

- Μικρότερη σε αυτόλογη μεταμόσχευση, αλλογενή - όχι μόρια για T απάντηση

Μελλοντικές κατευθύνσεις

- Τύπος κυττάρου, δοσολογία, απομόνωση κυττάρων
- Μακροπρόθεσμη παρακολούθηση, παρενέργειες

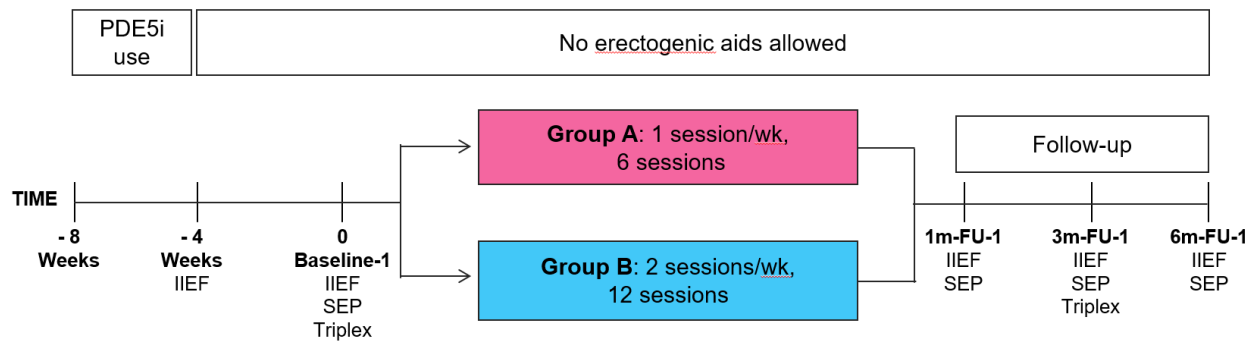
Στον ορίζοντα

- Μη επεμβατικές μέθοδοι (LiSWT), διέγερση και διαφοροποίηση ενδογενών μεσεγχυματικών κυττάρων (LIPUS)

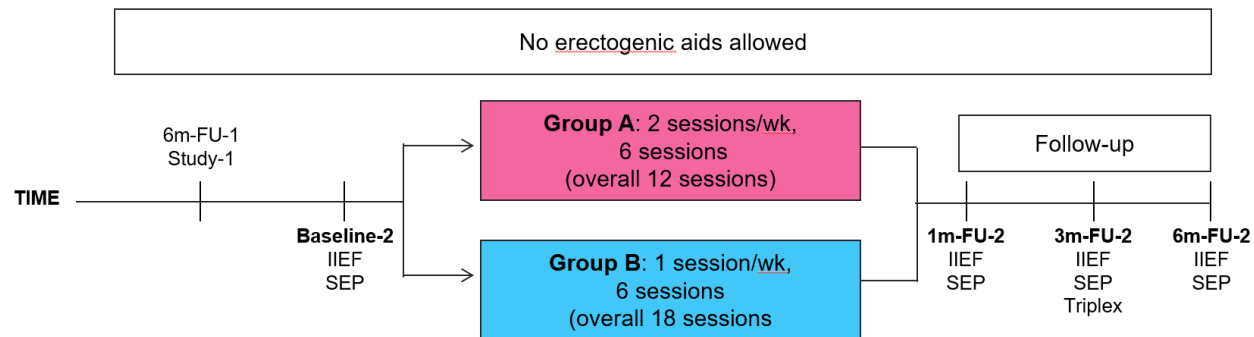
Low-Intensity Shockwave Therapy for Erectile Dysfunction: A Randomized Clinical Trial Comparing 2 Treatment Protocols and the Impact of Repeating Treatment

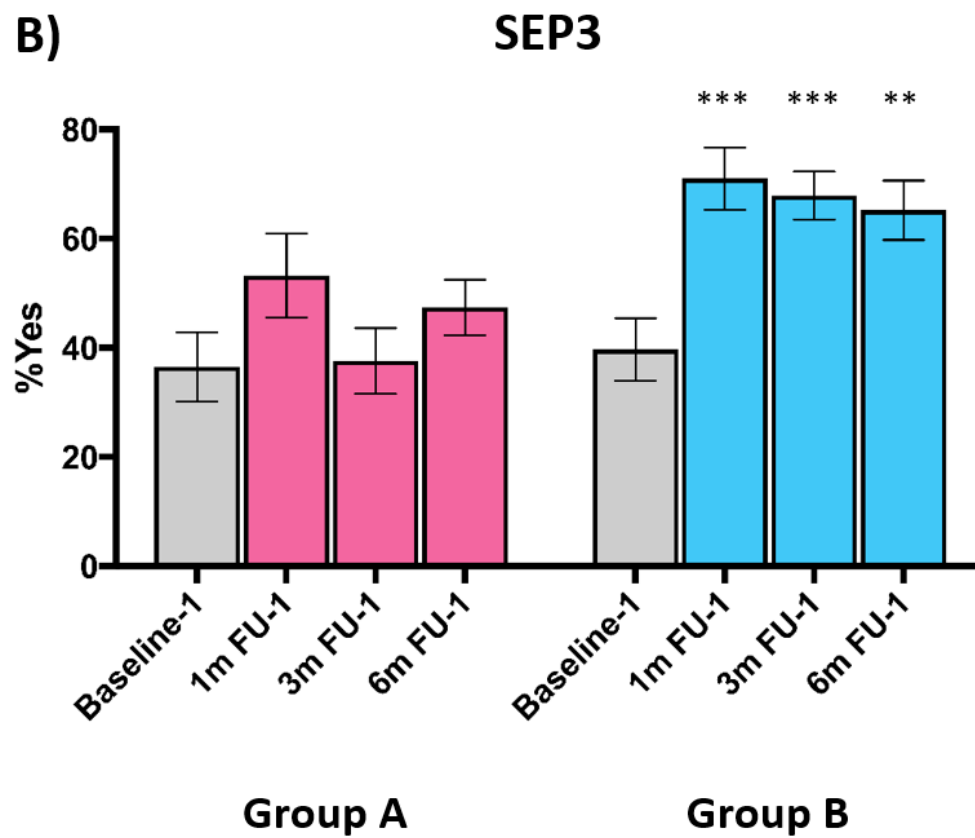
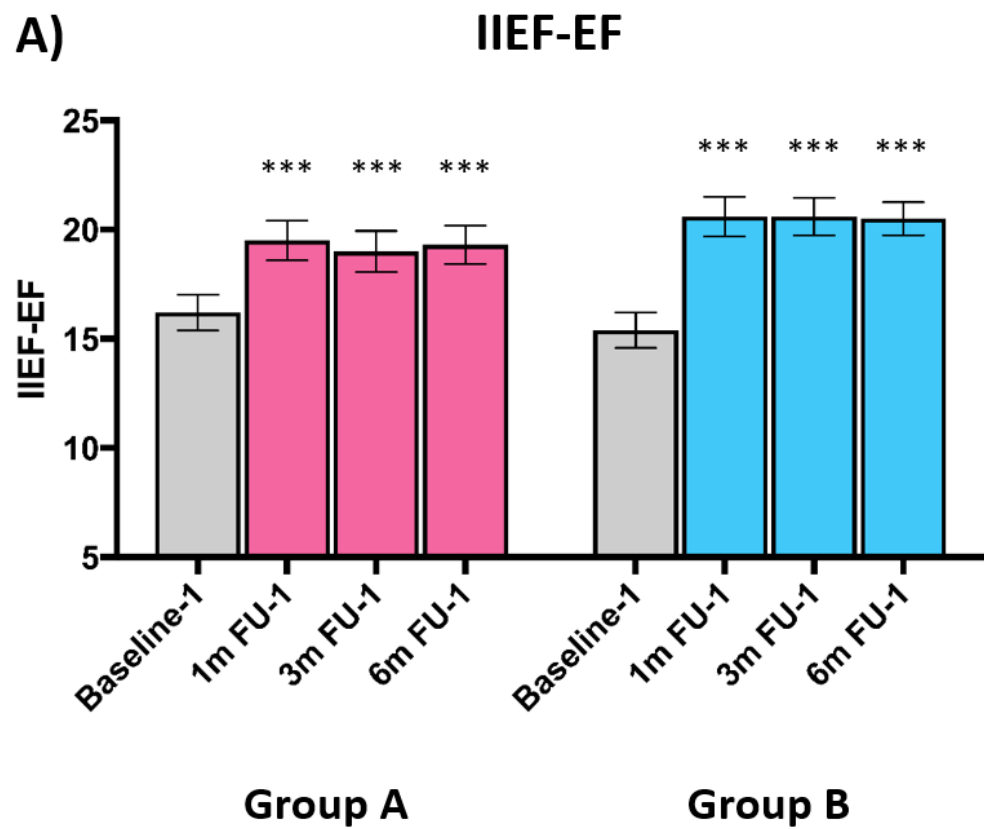
Dimitrios Kalyvianakis, MD, PhD,^{1,2,3} Evangelos Memmos, MD,^{2,3} Ioannis Mykoniatis, MD, MSc,^{2,3} Paraskevi Kapoteli, MSc,^{2,3} Dimitrios Memmos, MD,^{2,3} and Dimitrios Hatzichristou, MD, PhD^{2,3}

A) Study-1



B) Study-2





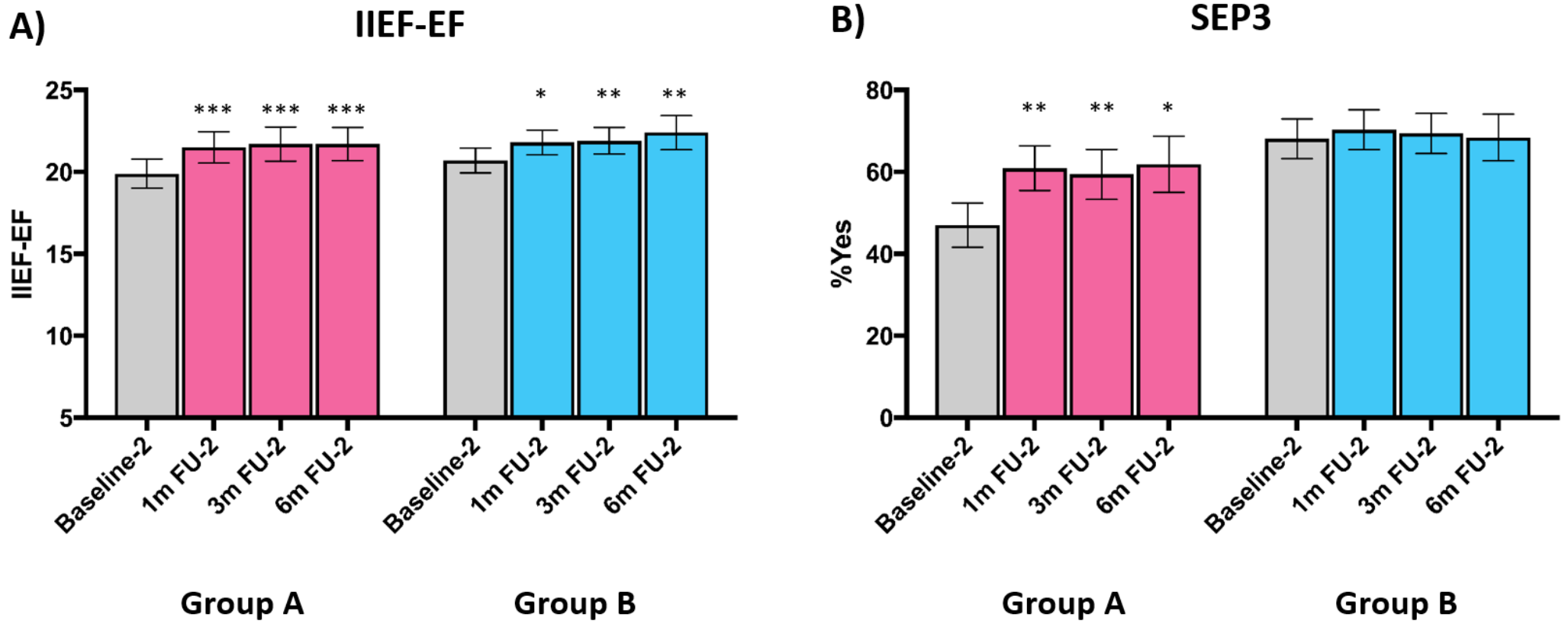


Figure 3. Erectile function questionnaires. Mean +/- SEM of (A) IIEF-EF scores and (B) SEP3 at different time points. P-values describe the change from baseline-2 to follow-up time-point within each group, obtained by paired t-test. N=18 per group.

* P < 0.05
 ** P < 0.01
 *** P < 0.001

Adverse Effects of Common Sports and Recreational Activities on Male Reproduction

Kush Panara, John M. Masterson, Luis F. Savio, Ranjith Ramasamy*

University of Miami Miller School of Medicine, FL, USA

Κακώσεις εγκεφάλου - Υπογοναδισμός

Category	Source	Sample/study description	Purpose	Conclusion
TBI and pituitary dysfunction	Kelly et al [11]	International Index of Erectile Function scores were obtained from NFL retirees with and without hormone deficiency.	To assess the relationship between mild TBI and pituitary function in retired football players.	The prevalence of hypogonadism among NFL retirees is roughly 10%. It is unclear if this hypogonadism can be attributed to recurrent mild TBI secondary to football.
TBI and pituitary dysfunction	Javed et al [18]	Review	To explore the evidence of the incidence of pituitary dysfunction following TBI	High-contact sports have been shown to be associated in pituitary dysfunction in many studies.
TBI and pituitary dysfunction	Tanriverdi et al [16]	Case report	To report a case of transient hypogonadism in an amateur kickboxer	Head trauma related to combat sports like kickboxing can lead to acute-onset, transient hypopituitarism.
TBI and pituitary dysfunction	Foley et al [15]	Case report	To report a case of hypopituitarism in an athlete following head trauma.	Hypopituitarism in the form of central diabetes insipidus can be seen following sports-related head trauma.

BFHV = basketball, football, handball, and volleyball; ED = erectile dysfunction; NFL = National Football League; OR = odds ratio; PSA = prostate-specific antigen; RF-EMR = radio frequency electromagnetic radiation; TBI = traumatic brain injury.

Ποδήλατο – άλλες αθλητικές δραστηριότητες

Category	Source	Sample/study description	Purpose	Conclusion
Cycling and ED	Marceau et al [35]	Community population of 1700 men aged 40–70 yr	Identify if a correlation between ED and bicycling exists	Those who bicycled for >3 h/wk were at greater risk of developing moderate to severe ED (OR = 1.72).
Cycling and ED	Hollingworth et al [33]	Cross-sectional study of over 5200 cyclists in the UK	To evaluate the association between cycling and ED, fertility, and PSA levels	There was no association between cycling time and ED and infertility. There was, however, a graded increase in prostate cancer risk for men aged >50 yr who bicycled >3.75 h/wk.
Cycling and ED	Taylor et al [34]	Internet-based survey of 688 men	To evaluate if cycling is a hazard to the sexual health of men	The overall prevalence of ED in cyclists does not seem to be higher than that in controls.
Cycling and sexual and urinary dysfunction	Awad et al [36]	Cross-sectional survey of nearly 4000 men aged 40–70 yr	To identify a correlation between bicycling and sexual and urinary dysfunction	There was no significant difference in sexual and urinary dysfunction between cyclists and swimmers/runners. Low intensity cyclists were, however, at higher risk of developing urethral strictures.

Sports and varicoceles	Radojevic et al [23]	1013 young males were divided into groups of: (1) BVHF players, (2) water-polo players, and (3) sports-inactive controls	To test the hypothesis that sports cessation would reduce varicocele prevalence in young athletes	Men in the BFHV group had significantly higher prevalence of varicoceles. Furthermore, a 6-mo sports cessation of men in the BFHV group led to improvement in every semen parameter.
Sports and varicoceles	Di Luigi et al [24]	60 healthy men and 60 men with varicoceles provided semen parameters	To identify the influence of physical exercise on seminal parameters	Athletes with varicoceles had significantly lower progressive forward motility normal spermatozoa ($p < 0.5$). They also had significantly lower left testis volume than contralateral testis ($p < 0.5$).

BFHV = basketball, football, handball, and volleyball; ED = erectile dysfunction; NFL = National Football League; OR = odds ratio; PSA = prostate-specific antigen; RF-EMR = radio frequency electromagnetic radiation; TBI = traumatic brain injury.

Ψυχαγωγία

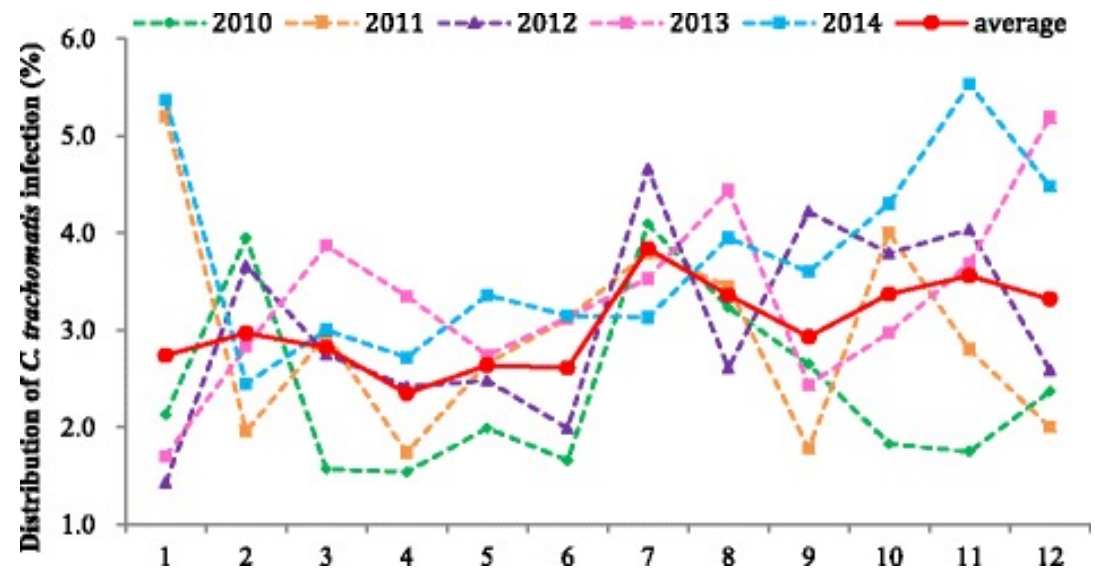
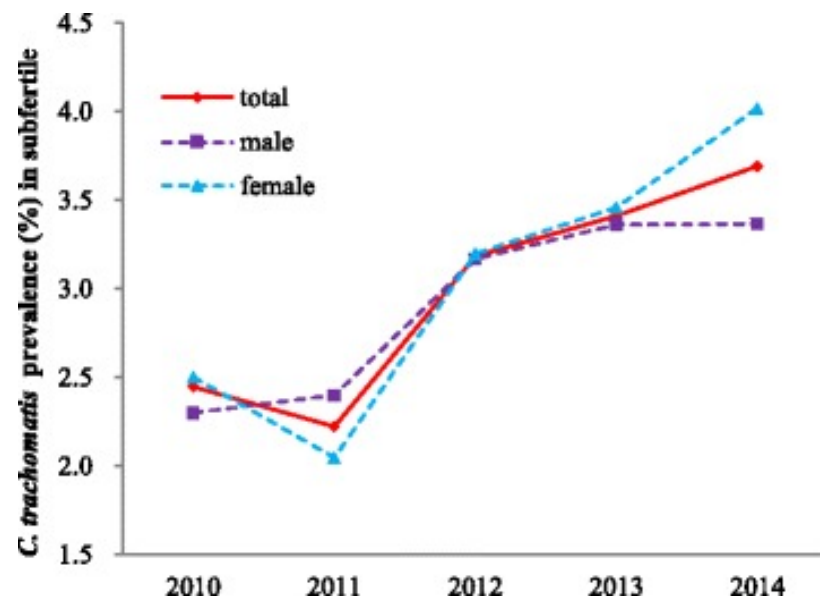
Category	Source	Sample/study description	Purpose	Conclusion
Recreation and scrotal temperature	Bujan et al [38]	9 volunteers drove a car for 160 min and scrotal temperature was measured	To evaluate the impact of driving position on scrotal temperature	<u>Scrotal temperature was significantly increased after driving for 2 h ($p < 0.0001$).</u>
Recreation and scrotal temperature	Shefi et al [40]	11 men who were exposed to wet heat for 30 min/wk underwent a period of wet heat abstinence for 3 mo	To evaluate the impact of wet heat on spermatogenesis	Elimination of heat exposure led to a return in semen parameters to baseline.
Recreation and scrotal temperature	Jung et al [53]	30 volunteers performed 90 min sitting in a heated and unheated car seat in a randomized order	To evaluate the impact of heated car seats on scrotal temperature	<u>Sitting in a heated car seat for 60 min can significantly increase scrotal temperature, reaching values that may impair spermatogenesis.</u>
Laptop computer and scrotal temperature	Sheynkin et al [42]	Left and right scrotal temperature was measured in 29 volunteers while working with laptops and without laptops.	To evaluate the impact of laptop use on scrotal temperature	<u>Scrotal temperature was significantly higher with working laptops</u>
RF-EMR and spermatogenesis	Adams et al [43]	Meta-analysis of studies looking at radio frequency electromagnetic waves and the impact on spermatogenesis	To evaluate the impact of cell phones on sperm quality	<u>Exposure to phones was significantly associated with reduced sperm motility and viability. They concluded that cell phone use decreases sperm quality in general.</u>

BFHV = basketball, football, handball, and volleyball; ED = erectile dysfunction; NFL = National Football League; OR = odds ratio; PSA = prostate-specific antigen; RF-EMR = radio frequency electromagnetic radiation; TBI = traumatic brain injury.

Αθλητισμός, ψυχαγωγικές δραστηριότητες, υπογονιμότητα

Comparative study in infertile couples with and without *Chlamydia trachomatis* genital infection

[Yuanchang Zhu](#),^{1,2} [Biao Yin](#),³ [Tonghua Wu](#),⁴ [Lijun Ye](#),⁴ [Chunmei Chen](#),⁴ [Yong Zeng](#),⁴ and [Yaou Zhang](#)^{✉2}



Επίπτωση

Ομάδα ελέγχου: 1140 γόνιμα ζευγάρια

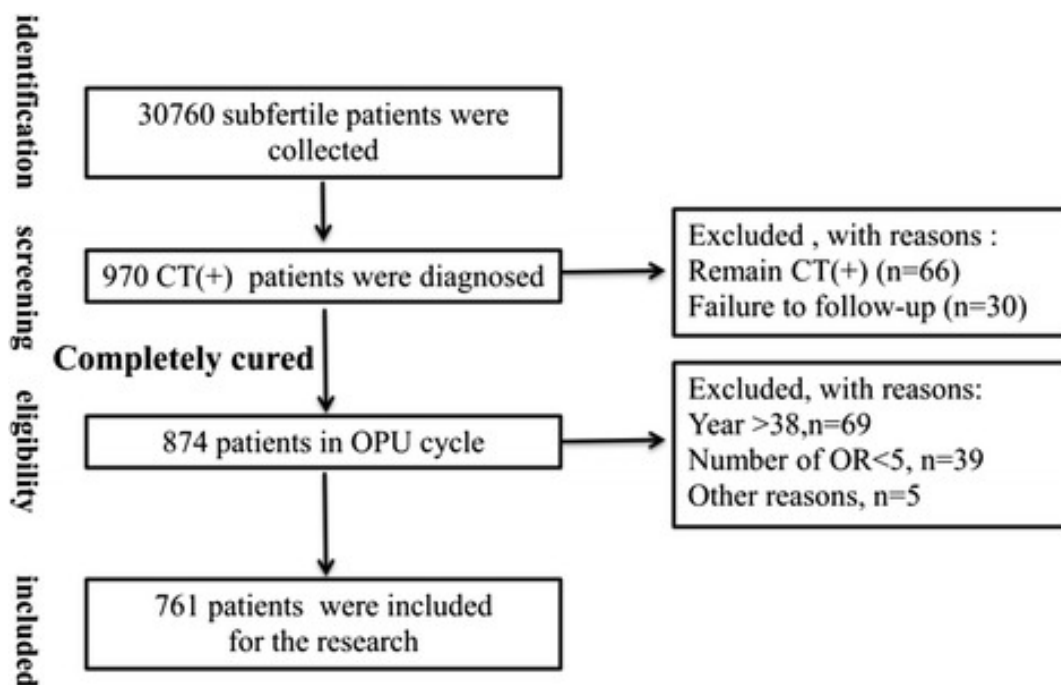
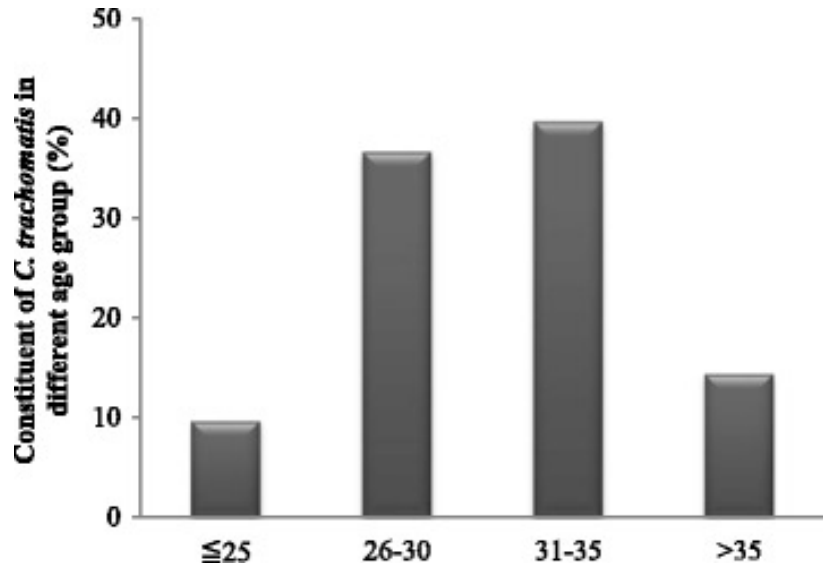


Table 1

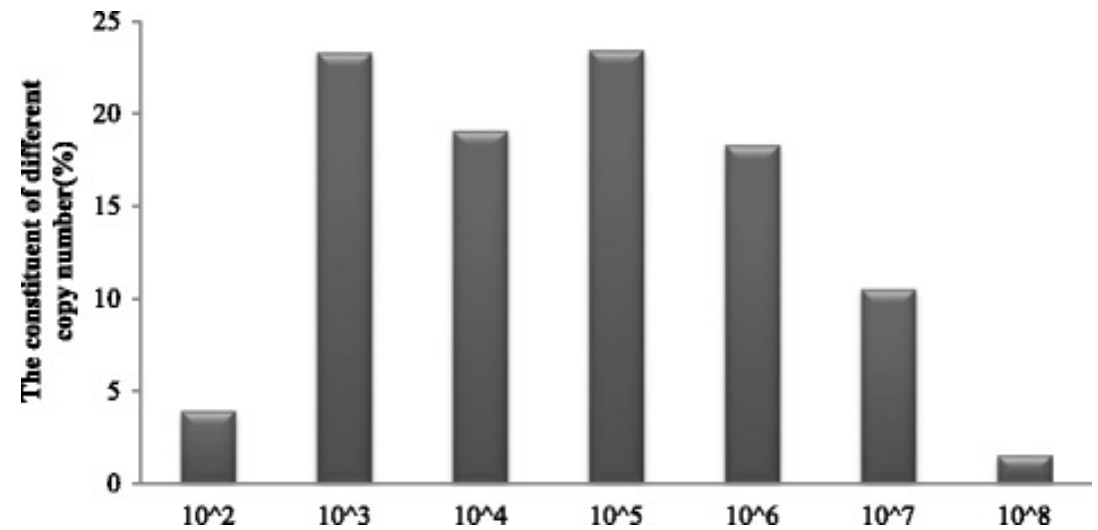
Parameters and clinical outcomes of patients with and without *C. trachomatis* infection

Variables	<i>C. trachomatis</i> (+)	<i>C. trachomatis</i> (-)	P value	OR (95% CI)
No. of couples	761	1140	/	
Male age (mean[IQR])	33.40 [29. -35]	33.79 [27-35]	0.874	
Female age (mean[IQR])	30.87 [24-32]	30.71 [25-32]	0.342	
Duration of infertility[IQR]	4.00 [2-5]	3.76 [2-5]	0.223	
Oocytes retrieved [IQR]	14.73[10-19]	14.68 [9-19]	0.529	
MII rate	88.80 (9957/11213)	88.82 (14873/16746)	0.966	0.998 (0.925-1.077)
Fertilized rate	76.55 (8584/11213)	75.98 (12724/16746)	0.271	1.032 (0.976-1.021)
Cleaved rate	96.28 (8265/8584)	96.03 (12219/12724)	0.348	1.071 (0.928-1.235)
Transfer cycles	643	938	/	
Transferred embryos[IQR]	2. 32 [2, 3]	2.25 [2-5]	0.036	
Embryo implantation rate	32.84 (490/1492)	36.56 (770/2106)	0.021	0.848 (0.738-0.976)
Clinical pregnancy rate	52.88 (340/643)	54.69 (513/938)	0.477	0.930 (0.760-1.137)
Miscarriage rate	13.24 (45/340)	16.18 (83/513)	0.238	0.790 (0.534-1.169)
Multiple pregnancy rate	43.82 (149/340)	46.78 (240/513)	0.395	0.887 (0.674-1.169)
Take baby home rate	45.88 (295/643)	45.95 (431/938)	0.978	0.997 (0.815-1.220)

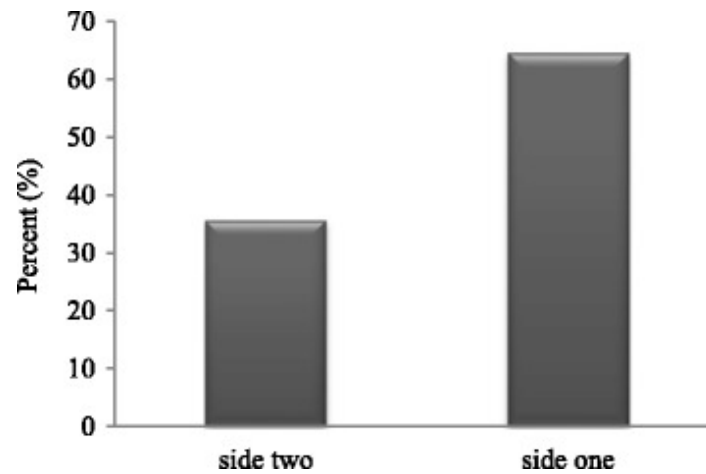
Note: + = previously-positive *C. trachomatis*; IQR interquartile range



C. Trachomatis ανά ηλικία



C. trachomatis DNA copies/ml πριν την θεραπεία



Αποτελέσματα

- Αριθμός μεταφερόμενων εμβρύων > ομάδα C.trachomatis (P <0,05)
- Ποσοστό εμφύτευσης < ομάδα C.trachomatis (P <0,05)
Μεγαλύτερη ηλικία γυναικών
- Χωρίς διαφορά: Ποσοστό κυήσεων, πολλαπλή κύηση, κλινική κύηση, αποβολές, γεννήσεις
- Δεν υπήρξαν διαφορές όταν μελετήθηκαν: ανά φύλο, αριθμό αποικιών και παρουσία λοίμωξης στον ένα ή στους δύο συντρόφους.

Για τους ασθενείς με μόλυνση με C. trachomatis, μετά από πλήρη θεραπεία, δεν παρατηρήθηκαν ανεπιθύμητες παρενέργειες στην κλινική έκβαση, ανεξαρτήτως φύλου, ηλικιακής ομάδας και αριθμού αντιγράφων.

Ευχαριστώ για την προσοχή σας