Vol. # 1 | Issue # 5 | October - December 2012

New Research Development 1 Metabolic and hormonal effects of myo-inositol in women

with polycystic ovary syndrome: a double-blind trial. +/- 2 mmHg (placebo group: from 128 +/-

To investigate the effects of treatment with concentrations in women with the Polycystic Ovary Syndrome (PCOS). Forty-two women with PCOS were treated in a double-blind trial with Myo-inositol plus folic acid or folic acid alone as placebo. In the group treated with Myo-inositol the serum total testosterone decreased from 99.5 +/- 7 to 34.8 +/- 4.3 ng/dl (placebo group: from 116.8 +/- 15 to 109 +/- 7.5 ng/dl; P = 0.85 +/- 0.1 to 0.24 +/- 0.33 ng/dl (placebo group: from 0.89 +/- 0.12 to 0.85 +/- 0.13 ng/dl; P = 0.01). Plasma triglycerides 148 +/- 19 mg/dl; P = 0.001). Systolic blood

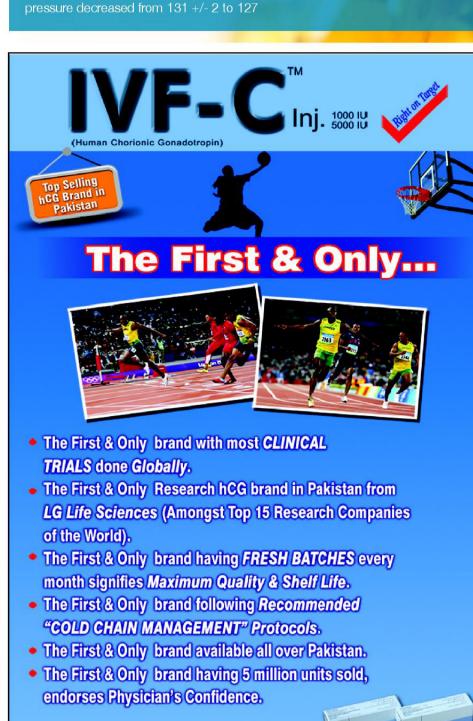
1 to 130 \pm 1 mmHg; P = 0.002). Diastolic Myo-inositol (an insulin sensitizing drug), on blood pressure decreased from 88 +/- 1 to 82 +/- 3 mmHg (placebo group: from 86 +/- 1 to 90 +/- 1 mmHg; P = 0.001). The area under the plasma insulin curve after oral administration of glucose decreased from 8.54 +/- 1.149 to 5.535 +/- 1.792 microU/ml/min (placebo group: from 8.903 P = 0.03). The index of composite whole body insulin sensitivity (ISI comp) increased from 2.80 +/- 0.35 to 5.05 +/- 0.59 mg(-2)/dl(-2) (placebo group: from 3.23 +/- 0.48 to 2.81 +/- 0.54 mg(-2)/dl(-2); P < 0.002). 16 out of 23 women of Myo-inositol group ovulated (4 out of 19 in placebo group). Treatment of PCOS patients with Myoinositol provided a decreasing of circulating insulin and serum total testosterone as well as an improvement in metabolic factors.



New Research

Development 2

hMG and idiopathic oligoastenoteratozoospermia (OAT): effects on seminal fluid parameters and on



results in ICSI cycles. Beretta G, Fino E, Sibilio L, Dilena M. Abstract acological treatment. Treatment produced a statistically significant Many studies on gonadotropin treatment in idiopathic OAT have improvement in spermatozoa produced inconsistent (75 IU FSH + 75 IU LH) at the dosage of 3

concentration (p = 0.016) and ampoules a week for 90 days in

18 patients with idopathic OAT and testicular volume 12-15 ml. At the end of the cycle seminal fluid parameters and testicular volume were reassessed, comparing them with a homogenous control group including 13 subjects awaiting ICSI, who were not given any kind of pharm-

reduction in atypical forms (p = 0.040). We assessed also the impact on oocyte fertilization and pregnancy rates after the use of assisted reproduction techniques in a more restricted group of 8 patients, who had already undergone ICSI cycles before pharmacological therapy. Treatment with menotropin (hMG) appears to improve embryo quality.

Fertility & Virility



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02

Abstract

DESIGN:

hospital.

INTERVENTION(S):

We treated 57 men with a gona-

dotropin-releasing hormone agonist

(GnRH-a) and then with recomb-

inant human FSH and hCG, and

30 patients did not receive any

treatment. Seminal parameters and

sperm aneuploidies were evaluated

during and after the treatment

period. Couples did not achieve a

spontaneous pregnancy received

assisted reproduction treatment. MAIN OUTCOME MEASURE(S):

Seminal parameters, sperm aneuploidies, testicular cytologic

Sparkling updates... Dietary supplement containing Myo-Inositol and Folic acid Supported by 77 Clinical Trials published in NIH-USA Gonadotropin administration after Low Estrogen Levels gonadotropin-releasing-hormone agonist: INOFOLIC High Free Testosterone Levels a therapeutic option in severe Obesity testiculopathies. Acne Hirsutism & Foresta C, Selice R, Moretti A, Pati MA, Carraro M, Engl B, Garolla A. Vitamin B8 Deficiency analysis, FSH, luteinizing hormone, **OBJECTIVE:** testosterone, inhibin B concen-To evaluate the effect of recomtrations, and pregnancy rate. binant human follicle-stimulating RESULT(S): After the therapy period, the treated hormone (FSH) plus human Galaxy Pharma (Pvt) Limited chorionic gonadotropin (hCG) on group showed statistically significant improvement in sperm seminal parameters and pregnancy rate in severe testiculopathies after parameters and sperm aneuhigh FSH plasma concentrations ploidies. No changes were obshave been suppressed. erved in the untreated group. A trend toward an increase in Prospective, controlled, randopregnancy rate also was observed ovary syndrome. mized clinical study. among treated couples (cumulative **SETTING:** pregnancy rates 31.6% treated vs. Infertility center at a university 20.0% untreated), although the Abstract increase was not statistically PATIENT(S): significant. The improvement of Polycystic ovary syndrome is the most Eighty-seven men affected by seminal parameters in the treated severe testiculopathy. group allowed some patients to

> parameters in severe male factor infertility when endogenous high FSH plasma levels are suppressed. In cases of severely impaired testicles, a rational treatment of male infertility is mandatory to improve the outcome of assisted reproduction techniques.

undergo in vitro fertilization-embryo

transfer instead of intracytoplasmic

Results from this controlled,

randomized clinical trial show that

FSH therapy improves sperm

sperm injection

CONCLUSION(S):

Effects of inositol on oocyte quality in patients affected with polycystic Ciotta L, Stracquadanio M, Pagano I, Carbonaro A, Palumbo M, Gulino F. patients of Group A took 2 g of myoinositol + 400mcg of folic acid 2 times a day, continuously for 3 months, while common cause of chronic anovulation Group B only 400mcg of folic acid. infertility in women in fertile period. The RESULTS AND CONCLUSION:

follicles of diameter >15 mm, visible at ability to increase insulin sensitivity, improves the oocytes' quality and increase ultrasound during stimulation, and the the number of oocytes collected after number of oocytes recovered at the time ovarian stimulation in patients undergoing of pick-ups were found to be significantly IVF (In Vitro Fertilization). The aim of our greater in the group treated with myostudy is to determine the effects of myoinositol, so as the average number of inositol on oocyte's quality on a sample embryos transferred and embryo Grade of women with polycystic ovary syndrome. G1. Significantly reduced was the average METHODS: number of immature oocytes (vesicles The patients were divided into two groups: germ and degenerated oocytes) too.

supplementation of inositol, due to its

Melatonin (N-acetyl-5-methox

ytryptamine) is secreted during the dark

Breakthrough in POF / Treatment of Elevated FSH For Treating... ■ Elevated Follicle Stimulating Hormone (FSH) Premature Ovarian Failure / Aging ■ Decreased Anti-Mullerian Hormone (AMH) Low Antral Follicle Count Low Oocyte & Embryo Quality Galaxy Pharma (Pvt) Limited Fertility & Virility

hours at night by pineal gland, and it development as an anti-oxidant to reduce regulates a variety of important central oxidative stress induced by reactive and peripheral actions related to circadian oxygen species, which are produced during ovulation process. The beneficial rhythms and reproduction. It has been believed that melatonin regulates ovarian effects of melatonin administration on function by the regulation of gonadotropin oocyte maturation and embryo development have been confirmed by in

The role of melatonin as an antioxidant in the follicle

Hiroshi Tamura, Akihisa Takasaki, Toshiaki Taketani, Manabu Tanabe, Fumie Kizuka, Lifa Lee, Isao Tamura, Ryo Maekawa, Hiromi Aasada and Yoshiaki Yamagata.

release in the hypothalamus pituitary gland axis via its specific receptors. In addition to the receptor mediated action, the discovery of melatonin as a direct free radical scavenger has greatly broadened the understanding of melatonin's mechanisms which benefit reproductive physiology. Higher concentrations of melatonin have been found in human preovulatory follicular fluid compared to serum, and there is growing evidence of the direct effects of melatonin on ovarian function especially oocyte maturation and embryo

vitro and in vivo experiments in animals. This review also discusses the first application of melatonin to the clinical treatment of infertile women and confirms that melatonin administration reduces intrafollicular oxidative damage and increase fertilization rates. This review summarizes our recent works and new findings related to the reported beneficial effects of melatonin on reproductive physiology in its role as a reducer of oxidative stress, especially on oocyte maturation and embryo. Pycnogenol alleviates pain associated with pregnancy. Kohama T, Inoue M. was evaluated by pain scores until delivery. A significant reduction of

pain could be obtained compared

with the control group, where no

decrease in pain scores in any

symptoms was reported. No

unwanted effects were observed

in the Pycnogenol group. These

At the end of treatment, the number of

development. Many scientists have

focused on the direct role of melatonin

on oocyte maturation and embryo

supplemented with Pycnogenol at results indicate the potential of a dose of 30 mg/day without any Pycnogenol to reduce pain other therapy. Alleviation of pain associated with pregnancy.

Follitrope[™] Inj. Prefilled syringe

Evidence is vital for

Confidence...

The effect of Pycnogenol was

studied in women in the third

trimester of pregnancy, compl-

aining of lower back pain, hip joint

pain, pelvic pain (pain in the inguinal

region), pain due to varices or calf

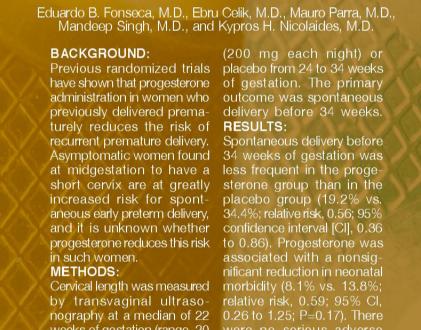
cramps. The women were

Clinically proven efficacy & safety

Assured biological consistency

Cost effective

Highly Purified recombinant FSH



Progesterone and the Risk of Preterm Birth

among Women with a Short Cervix

weeks of gestation (range, 20 to 25) in 24,620 pregnant women seen for routine were no serious adverse events associated with the

prenatal care. Cervical length was 15 mm or less in 413 of the women (1.7%), and 250 (60.5%) of these 413 women were randomly assigned to receive vaginal progesterone

OBJECTIVE:

DESIGN:

SETTING:

as necessary

To demonstrate the efficacy and

safety of follitropin administered with hCG on spermatogenesis in adult

male hypogonadotropic hypog-

Phase III, multicenter, open-label,

necessary, to normalize T levels,

followed by follitropin 150 IU and

Pubertal advancement and long-

onadism (HH) patients.

noncomparative.

CONCLUSIONS: treatment with progesterone reduces the rate of sponta-neous early preterm delivery. Stimulating Spermatogenesis

term safety and tolerability were also

In total, 22 of 29 patients (75.9%)

who received > or =1 dose of follitropin and 20 of 25 patients

(80%) who completed 18 months of hCG + follitropin treatments

achieved a sperm concentration >

or = $1.5 \times 10(6)$ /mL. A sperm

concentration >20 x 10(6)/mL was

side effect, and gynecomastia was

reported in 10% of patients.

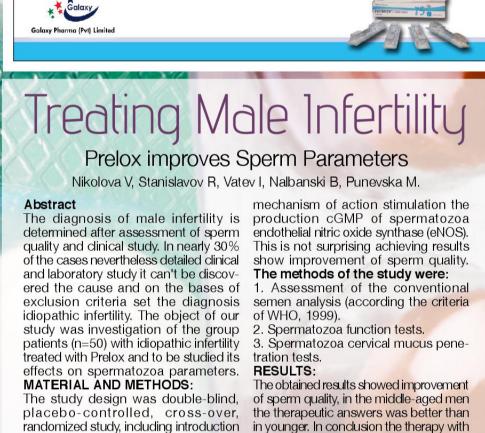
Stimulation of Spermatogenesis with Recombinant Human Follicle-Stimulating Hormone: long-term treatment in azoospermic men with hypogonadotropic hypogonadism. Matsumoto AM, Snyder PJ, Bhasin S, Martin K, Weber T, Winters S, Spratt D, Brentzel J, O'Dea L.

evaluated.

RESULT(S):

Seven US medical centers. PATIENT(S): Median sperm concentration at 18 A total of 36 adult males with severe months was 5.2 x 10(6)/mL. Pubertal development continued INTERVENTION(S): A total of 1,000 IU hCG on alternate during the study, and testis volumes increased. Five clinical pregnancies days for 3 to 6 months, with dose were achieved. Acne (52% of adjustments after 2 months, if patients) was the most common

CONCLUSION(S): hCG on the same alternate days for Long-term treatment of azoos-18 months, with dose adjustments permic HH men using follitropin and MAIN OUTCOME MEASURE(S): hCG is effective for stimulating Proportion of patients with sperm spermatogenesis and is welldensity > or =1.5 \times 10(6)/mL.



AROM

period (1 month), two therapeutic periods

(each one of 1 month) separated with 1 month wash out period and conduding period of 1 month. There was applied a

new method for treatment with

Smart **The Best Oral Ovulation Induction Agent**

Prelox improve sperm parameters in men with idiopathic infertility. Pycnogenol (one of the constituents of Prelox) has powerful

antioxidative influence ameliorating

spermatozoa function.



Galaxy Pharma (Pvt) Limited

A tested solution for treating Endometriosis &

Male Infertility

Fertility & Virility

Induction of Spermatogenesis in a man with NOA Use of the aromatase inhibitor letrozole to induction in patients with poor response treat male infertility. to clomiphene citrate. Patry G, Jarvi K, Grober ED, Lo KC. Begum MR, Quadir E, Begum A, Begum RA, Begum M.

The patient was given the aromatase

inhibitor letrozole for 4 months and had

repeated FSH, testosterone, LH levels,

semen analyses, and finally a testicular

the first case report on the induction of

INTERVENTION(S):

CONCLUSION(S):

MAIN OUTCOME MEASURE(S): Results of a testis biopsy. Case report. SETTING: University Infertility center. RESULT(S): PATIENT(S): Testis biopsy showed normal A 31-year-old man with primary infertility, spermatogenesis following 4 months of normal volume azoospermia, normal letrozole therapy.

and pattern of nonobstructive This is the first case report on the use

azoospermia (NOA) on a testicular of letrozole to treat male infertility and

Effective for Menstrual Irregularities

12th week of pregnancy

FINISHED FORM

Prevention of Threatened & Habitual Miscarriages up to

The Only Natural Progesterone Imported in COMPLETELY

Galaxy Pharma (Pvt) Limited

Report the case of induction of

spermatogenesis with the aromatase

follicle stimulating hormone (FSH) levels

Abstract

biopsy.

OBJECTIVE:

inhibitor letrozole. **DESIGN:**

spermatogenesis in a man with NOA using any aromatase inhibitor. Ensures Balance 100 / 200 mg (Oral/Vaginal) Natural Micronized Progesterone

cycle. The patients who did not respond adequately were treated by aromatase inhibitor 2.5-5

Abstract

of ovulation.

METHODS:

by clomiphene citrate for several cycles and referred to the infertility clinic, were the target population. Initially, the response of CC was assessed by same dose of CC that the patient had in her last

To examine the efficacy of

aromatase inhibitor in the induction

This prospective clinical trial in

patients with infertility and poor

response to clomiphene citrate

(CC) was undertaken in a tertiary

evaluate the effect of dehydro-epiandrosterone (DHEA) supple-

mentation on in vitro fertilization

(IVF) data and outcomes among

controlled study was conducted.

All patients received the longprotocol IVF. Those in the study

group received 75 mg of DHEA once a day before starting the next IVF cycle and during treatment.

significantly diminished ovarian

reserves were enrolled, 17 in the DHEA group and 16 in the control

poor-responder patients.

METHODS:

RESULTS:

Ease in Ovulation Induction Role of aromatase inhibitor in ovulation

> mg/day from day 3-7 of the menstrual cycle. The main

outcome measures were the

number of mature follicles,

ovulation rate, endometrial

thickness and pregnancy rate.

Twenty-seven (90%) patients

developed mature follicles by day

12. The majority (77.77%) deve-

of all patients were ruptured in all cycles and seven (25.94%) got pregnant. CONCLUSION: The aromatase inhibitor letrozole is effective for ovulation induction

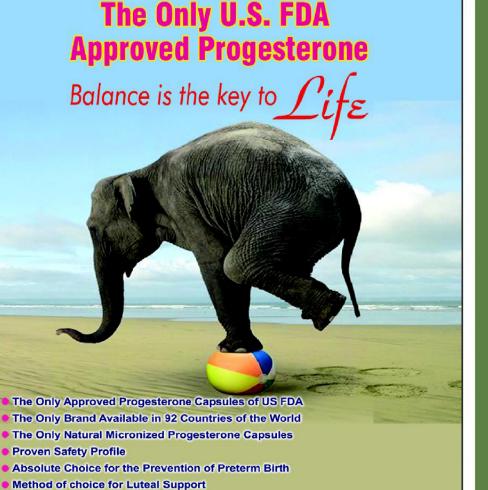
RESULTS:

referral infertility clinic. Thirty-five loped single follicle. Except for one

infertile patients, who were treated cycle of one patient, the follicles

that failed to ovulate by CC.

in anovulatory infertility in patients



Good News for Poor Responders... Addition of dehydroepiandrosterone (DHEA) for poor-responder patients before and during IVF treatment improves the pregnancy rate: a randomized prospective study. Wiser A, Gonen O, Ghetler Y, Shavit T, Berkovitz A, Shulman A. **Abstract BACKGROUND:**

group. The 33 patients underwent 51 IVF cycles. The DHEA group The aim of this study was to demonstrated a non-significant improvement in estradiol levels on day of hCG (P = 0.09) and impro-

ved embryo quality during treatment (P = 0.04) between first and second cycles. Patients in the DHEA group also had a significantly higher live birth rate compared with controls (23.1% versus 4.0%; P = 0.05), respectively. Six of seven deliveries were among patients with secondary infertility (P = 0.006). CONCLUSION: Dehydroepiandrosterone supple-Thirty-three women with mentation can have a beneficial

effect on ovarian reserves for poor-