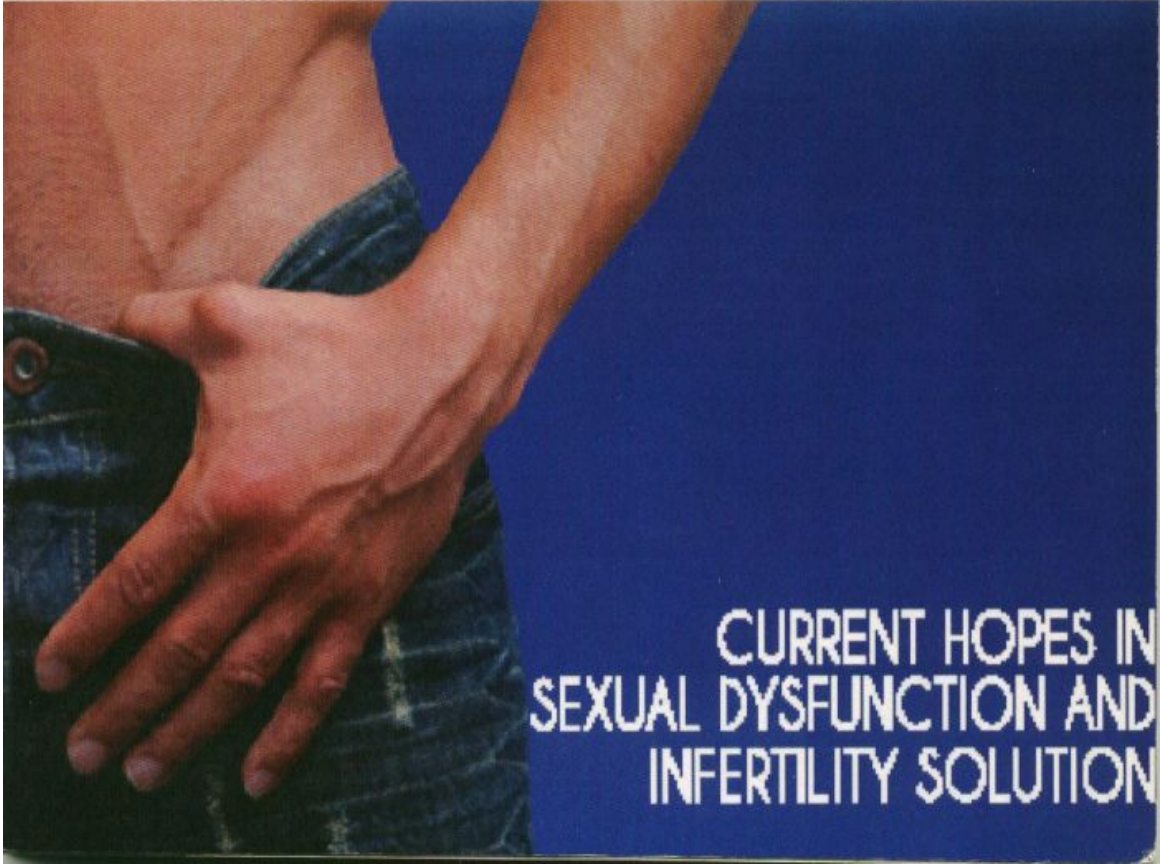


PERTEMUAN ILMIAH TAHUNAN PERSANDI V - PANDI XIX

KUMPULAN ABSTRAK



CURRENT HOPES IN
SEXUAL DYSFUNCTION AND
INFERTILITY SOLUTION

Contents

1.	KATA PENGANTAR.....	6
2.	MALE INFERTILITY PROBLEMS: THE CONSENSUS-BASED APPROACH TO STANDARDIZED DIAGNOSIS AND MANAGEMENT OF THE INFERTILE MALE, Nukman Moeloek.....	9
3.	PRACTICAL LABORATORY ANDROLOGY: HOW CAN SPERM ANALYSIS ASSIST IN UNDERSTANDING OF THE MALE REPRODUCTIVE STATUS (WHO, 2010).Christina Wang.....	26
4.	DIAGNOSTIC WORK-UP and PRINCIPAL THERAPY IN ERECTYLE DYSFUNCTION, Arif Adimoelja.....	28
5.	IMAGING OF REPRODUCTIVE MALE INFERTILITY Prijo Sidipratomo	30
5.	FEMALE EJACULATION. FACT OR FICTION, Susilo Wibowo.....	31
7.	TESTOSTERONE TREATMENT OPTIONS: CHOICES AND NON-CHOICES IN THE WORLD, Ronald D. Swerdloff.....	35
8.	CURRENT CONCEPT IN THE MANAGEMENT OF ED AND DEVELOPMENT OF PDE5 INHIBITORS, Wimpie Pangkahila.....	37
8.	FISIOLOGI FUNGSI SEKSUAL PRIA DAN PETUNJUK PRAKTIS PENANGANAN EJAKULASI DINI. Johannes Soedjono.....	39
9.	OPTIMALISASI PROSEDUR " <i>DISCONTINUOUS DENSITY GRADIENTS</i> " DALAM PREPARASI SPERMA., Tri Bowo Hasmoro.....	45
11.	CARDIO-VASCULAR-RISK PREVENTION AND TESTOSTERONE, Arif Adimoelja,	51
12.	FUTURE OF ANDROLOGY, SCOPE AND GOALS OF ANDROLOGY IN INDONESIA, Christina Wang.....	52
13.	HORMONAL MALE CONTRACEPTION, Nukman Moeloek.....	54

14. REVOLUTION OF GENETICAL ASPECT ON ANDROLOGY., Wahyuning Ramelan.....	56
15. FUNGSI REPRODUKSI PRIA LANSIA, K.M Arsyad.....	57
16. BENEFICIAL EFFECTS OF N-ACETYLCYSTEINE FOR IMPROVING SEMINAL PLASMA PARAMETERS IN INFERTILE MEN, Gunawan Subrata.....	58
17. IMPACT DISORDERS OF SEXUAL BEHAVIOR, Obrien S.Tendean.....	60
18. COMPLEXITY IN THE MANAGEMENT OF SEXUAL DYSFUNCTION, Wimpie Pangkahila	62
19. PENGARUH PEMBEKUAN TERHADAP KUALITAS SPERMATOZOA, Hudi Winarso.....	64
20. BRAIN IMAGING ON PUBERTAL SEXUAL LIFE, Muchammad Syamsulhadi....	65
21. DURATION OF ERECTION: THE NEWEST EFFICACY PARAMETER COUPLES WILL LOVE, OUT WITH THE OLD AND IN WITH THE NEW, Susanto Suryaatmadja.....	67
22. IPASS NEBIDO (INTERNATIONAL, MULTI-CENTRE, POST AUTHORIZATION SURVEILLANCE STUDY ON THE USE OF TESTOSTERONE UNDECANOATE INJ / NEBIDO TO ASSESS TOLERABILITY AND TREATMENT OUTCOMES IN DAILY CLINICAL PRACTICE), Nugroho Setiawan	68
23. FUTURE CONCEPTS AND EXPERIMENTAL OF IMMUNOLOGICAL IN ART ERA, Indra G. Mansur.....	70
24. DIAGNOSIS AND TREATMENT OF LATE ONSET HYPOGONADISM, Ronald S. Swerdloff.....	72
25. SPERM DNA FRAGMENTATION AND FERTILIZING CAPACITY TEST AS OPTIONAL ANDROLOGICAL TEST TO PREDICT FERTILIZATION OUTCOME, Herman Wibisono.....	74
26. HORMONAL CONCEPT OF SEXUALITY DEVELOPMENT, J. Alex Pangkahila ..	76

27. PENILAIAN MORFOLOGI SPERMA SEBAGAI BAGIAN DIAGNOSTIK DAN PENATALAKSANAAN BIDANG ANDROLOGI YANG PENTING, Tri Bowo Hasgoro,.....	78
28. THE ROLE OF ZINC AND ANTIOXIDANT ON SPERM QUALITY, KM Arsyad	80
29. ALGORITHM OF MALE SUBFERTILITY FOR ART, Dyan Pramesti.....	82
30. CURRENT DEVELOPMENT OF LOW COST ART, Aucky Hinting.....	83
31. THE LINK OF CORONARY INSUFFICIENCY AND ERECTILE DYSFUNCTION, Santoso Karo Karo.....	84
32. INTEGRATED MANAGEMENT OF SEXUAL PROBLEMS IN MARRIED COUPLES, J. Alex Pangkahila	87
33. HORMONAL TREATMENT FOR MALE AND FEMALE HYPOACTIVE SEXUAL DESIRE DISORDER, Tjahjo Djojo Tanojo.....	89
34. RASIONALISASI PENGGUNAAN ANDROGEN DALAM MANAJEMEN INFERTILITAS PRIA, Dicky Moch Rizal.....	91
35. DEVELOPMENT OF SPERM AND TESTICULAR TISSUE CRYOPRESERVATION, Aucky Hinting	92
36. ROLE OF ERECTILE DYSFUNCTION MEDICAL TREATMENT, Ali Fuchih Siau	93
37. PSYCHOPHYSIOLOGY OF SEXUAL RESPONSE, Aris Sudiyanto.....	95
38. MALE INFERTILITY, NEW CHALLENGES AND NEW HOPE IN STEM CELL ERA, Susilo wibowo.....	96
39. USE AND ABUSE OF COMBINATION OF ANTIESTROGEN AND ANTIOXIDANT TREATMENT FOR IDIOPATHIC MALE INFERTILITY, Taufiqurrachman.....	101
40. PENGEMBANGAN TEKNIK PEMANFAATAN CAIRAN FOLIKEL OVARIUM KAMBING SEBAGAI UPAYA UNTUK MENINGKATKAN PRODUKTIVITAS ITIK PETELUR AFKIR, Roimil Latifa.....	105

41. ANALISIS EKSPANSI PENGULANGAN CAG GEN ANDROGEN RESEPTOR PADA 46, XY DENGAN GANGGUAN PERKEMBANGAN KELAMIN (DSD), Mahayu D Ariani,.....	107
42. MEASUREMENT OF CAG REPEAT LENGTH ANDROGEN RECEPTOR GENE IN 46, XY INDONESIAN NORMAL MALE POPULATION, Muflihatul Muniroh....	109
43. DISFUNGSI SEKSUAL AKIBAT PEMBERIAN ANTIPSIKOTIK, Safira Amira Tjandrasari	111
44. GAMBARAN ANALISIS SPERMA PASANGAN INFERTIL PADA KLINIK INFERTILITAS DI KOTA MADYA PADANG, Arni Amir.....	113
45. IMUNOGENISITAS DARI DUFFY BINDING-LIKE DOMAIN (DBL) YANG BERIKATAN DENGAN CHONDROITIN SULFATE A (CSA) DAN PROTEKSI TERHADAP PREGNANCY-ASSOCIATED MALARIA (PAM). Pratiwi Dyah Kusumo	114
46. FUNGSI SEKSUAL DAN USIA LANJUT, RR Dyah Rikayanti N.....	115
47. HUBUNGAN TESTOSTERON DENGAN SEL SPERMATOGENIK TIKUS PUTIH JANTAN (<i>Ratus norwegicus</i>) SETELAH DIBERI SENYAWA AKTIF DAUN BELUNTAS, Eko Susetyarini.....	117
48. INFEKSI <i>TOXOPLASMA GONDII</i> PADA KASUS GANGGUAN KEHAMILAN DAN INFERTILITAS DI RS. LENGGOGENI DAN RS. SEMEN PADANG, Nuzulia Irawati	118
49. ANTIBODI-PROTEIN CATSPER SPERMA SEBAGAI TARGET IMUNOKONTRASEPSI BARU PRIA, Evelyn Loanda.....	119
50. KONSULTASI SEKSUALITI PRA NIKAH PERLUKAH?, Abdullah Wali Nasution	120
51. IDENTIFICATION of HUMAN SPERM for IMMUNOCONTRACEPTION, Reny I'tishom	122
52. DISFUNGSI SEKSUAL PADA WANITA, Tumpak saragih.....	124

53. <i>ANNONA MURICATA</i> SEYOGYANYA DAPAT DIGUNAKAN SEBAGAI OBAT TERAPI KANKER TESTIS, Endang Darniati.....	125
54. ICD X AND ANDROLOGY, Judie Hartono.....	127
55. CONGENITAL ADRENAL HYPERPLASIA, Raynaldo W,	128
56. HUBUNGAN ANTARA ANDROPAUSE DENGAN DEPRESI PADA GURU DAN KARYAWAN SMA NEGERI 1 SUKOHARJO, Endang Sahir	129
57. LONG TERM EFFECTS OF HORMONE REPLACEMENT THERAPY ON HEART RATE VARIABILITY, QT INTERVAL, QT DISPERSION AND FREQUENCIES OF ARRHYTHMIA, Djoko Trihadi.....	130
58. PENATALAKSANAAN DISFUNGSI SEKSUAL AKIBAT PEMAKAIAN SELECTIVE SEROTONIN REUPTAKE INHIBITORS, R. M. Willy Indrawilis.....	132
59. POSTMENOPAUSAL HORMONE REPLACEMENT THERAPY INCREASES PLASMATIC THROMBOXANE /32, Djoko Trihadi.....	133
60. MOTILITAS SPERMA <i>POST WASHING</i> SEBAGAI PREDIKSI KEBERHASILAN INSEMINASI INTRA UTERIN, Mayasari, A.....	135
61. INFLUENCING FACTORS OF ANDROGEN AND SEX HORMON BINDING GLOBULIN THE ELDERLY (FOCUS ON CARDIOVASCULAR RISK), Djoko Trihadi.....	138

USE AND ABUSE OF COMBINATION OF ANTIESTROGEN AND ANTIOXIDANT TREATMENT FOR IDIOPATHIC MALE INFERTILITY

Taufiqurrachman

Summary

Infertility is defined as the inability of the couple to conceive despite one year of frequent unprotected intercourse. In those couples male has a significant contribution to the infertility occurrence. However not all causes can be identified and so called idiopathic infertile. According to Horstein MD and Gibbons WE reported that the percentage of couples who experience infertile caused by unexplained infertility was 15%. The sperm parameter in infertile males usually has lower in concentration, motility, and morphology compared to fertile male. Various treatments have been used to surmount these problem including clomiphen citrate (CC) and antioxidant. Unfortunately by using both of modality did not indicate the increase of pregnancy rate. The purpose of this paper is to discuss about how CC and antioxidant combination have effect upon the sperm parameters and pregnancy rate improvement.

CC constitutes a mixture of two isomers which are enclomiphen and zuclomiphen. Like tamoxifen CC is a non steroidal triphenylethylene derivation, indicating both estrogen agonist and antagonist properties. In one side estrogenic agonist properties are generally manifest only in the moment of estrogen level is extremely low. On the other side CC able to act solely as a competitive estrogen antagonist. Various evident show that CC increase endogenous GnRH secretion from hypothalamus and gonadotropin (FSH, LH) from pituitary, thus increasing intra testicular testosterone, constituting a fundamental condition for spermatogenesis. As Hussein reported that CC administration for cases of non obstructive azoospermia allowed for both the appearance of sperm in ejaculate and in those patients were remain azoospermia, successful sperm retrieval for ICSI can be achieved. After 3 – 9 months of treatment using CC, 64.3% of patients manifested sperm in their

ejaculate. The mean of sperm density in this study was 3.8 million/mL, even the partner of one patient achieve spontaneous pregnancy. Meanwhile the ejaculate remainder of these patients contained sufficient sperm for IVF or ICSI. In addition according to double blind study was reported by Guay showed that treatment with CC during two months to impotent men with secondary hypogonadism could increase LH, FSH, and Testosterone levels. These finding were also supported by meta-analysis from Cochrane, in which the CC administration could increase hormone concentration (FSH & Testosterone), sperm concentration, and motility significantly, but not significant for sperm morphology. On the other hand, even though the spontaneous pregnancy rate was increased by CC treatment but it is not significant. According to these data it can be conclude that CC treatment increase the quality of sperm parameters but not to spontaneous pregnancy rates. For this reason possibility of antioxidant treatment can be added as complementary.

Oxidant or free radical is an atom or a group of atom which has unpaired electron, thus very reactive and so called reactive oxygen species (ROS). ROS consist of oxygen superoxide (O_2^*), hydroxyl radical (OH^*), peroxy radical (ROO^*), and hydrogen peroxides (H_2O_2). To deter the ROS effect, body system has been naturally equipped with the biochemical buffer system namely primary antioxidant in order to make in balance between pro-oxidant and antioxidant. The balancing may be shifted to pro-oxidant when concentration of antioxidant is decreased or the production of ROS is increased. ROS in male reproductive tract can induce the damage of spermatozoa and decreasing quality of sperm parameter. In higher ROS concentration, natural antioxidant as scavenger is needed to neutralize oxidant effects. There are two types of natural antioxidant has been known, which are preventive antioxidant and chain breaking reaction. The preventive antioxidants are natural antioxidant which able to suppress or inhibit ROS production in initiation stage such as enzyme of catalase, peroxides, and glutathione peroxides has done. However the action of preventive antioxidant cannot clean up all the ROS but still left in low concentration, otherwise it will be increased when ROS from outside is also increase. Thus to

surmount of such ROS effect, chain breaking antioxidant is needed for ROS chain reaction chocking off in propagation phase. The natural antioxidant including in chain breakers are divided into two groups. The first group is water soluble antioxidant like as superoxide desmutase (SOD), uric acid, bilirubin, albumin, thiols, and vitamin C. Meanwhile vitamin E, carotenoid, ubiquinol, polyphenol (flavonoid), and caffeat phenetyl ester (CAPE) are fat soluble antioxidant. Antioxidant efficacy is very determined not only by chemistry properties and concentrations, but also by mobility and location of antioxidant in its micro environment. Accordingly vitamin E and other fat soluble antioxidant are very effective against ROS. Antioxidant treatments in male infertility considerably need in-depth thought about the primary sources of increasing ROS. However antioxidant can be treated directly to infertile male in whose the causes of infertility remained unknown, as well as to patients who were exposed by substance that cause the increase of ROS concentration, especially in spermiogenesis stage.

In the spermyogenesis stage 85% of nuclear histone to be replaced by protamine, in order to DNA tightly packaging and by which DNA will be resistant to oxidant attack. At the moment of histone replacement by protamine, temporary breaking of spermatozoa which is induced by topoisomerase II enzyme is needed, and will be recovered by the same enzyme. Abnormality of DNA packaging due to protamine deficient can induce DNA to be more vulnerable to oxidant attack and subsequently damaged easily. Thus treatment of appropriate antioxidant might prevent nuclear DNA damage during spermatogenesis, particularly in the stage of spermyogenesis. Based on such aforementioned data, the treatment combination of CC and antioxidant is make sense, but it is not including in misuse or abuse, providing the selection type and dose of antioxidant are appropriately.

Conclusion can be taken that CC treatment alone in infertile male or in combination with antioxidant is very beneficial.