

The study included 126 infertile men. Mean age was 35.7 years (range 29–44). Sperm specimens evaluated for DNA fragmentation using the Halosperm kit (Indas, Spain). The kit allows rapid detection of sperm dispersion.

There were 39 (30%) patients with normozoospermia (Group 1) and 87 (70%) patients with different types of pathospermia (Group 2).

Mean DFI was  $15.5\pm 2.3\%$  in Group 2 compared to mean value of  $9.3\pm 2.0\%$  in Group 1 ( $p < 0.001$ ). DFI was statistically correlated with Kruger's index only in Group 2 ( $r = -0.036$ ,  $p < 0.001$ ). Sperm concentration and motility showed no correlation with sperm DNA damage in both groups.

Our results indicate that poor sperm DNA integrity is associated with pathospermia in infertile men.

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### MALE SUB-FERTILITY SECONDARY TO MALE SEXUAL DYSFUNCTIONS: OUR EXPERIENCE

R. Vaccari, F. Pezzoni. *Milan, Italy*

The male sexual dysfunctions (MSD) can be causes of male sub-fertility (MSF), however in a restricted number of cases. Among MSD the two principal causes of MSF are the Erectile Dysfunctions (ED), in their variable gravity, even complete impotence and Ejaculation Dysfunctions: Premature Ejaculation (PE) and, on the opposite side, Delayed Ejaculation (DE).

The mechanism with whom they induce MSF is common and basically represented by "Ipopsia", that is total or partial inability to have a normal sexual intercourse, ended by a valid intra-vaginal ejaculation. Therefore is mandatory to know the diagnostic and the therapy of these two pathologies for making the "couple", because it is an authentic "couple disease", in condition to have the best chances to obtain the maximum potential fertility rate.

Diagnostic and therapy of ED: the erection is a complex neuro-vascular phenomenon that follows the release of nitric oxide (NO) as a result of sexual stimulation. In approximately 70% of the cases, the problems are of an organic nature. Half of the remaining 30% cases can be attributed to a mixture of organic and psychological causes, and the other half are due to purely psychological causes. The diagnostic procedure includes examinations of the case history, general and localised examination, and metabolic and hormonal screening. Level 2 includes the dynamic echo-colour-power Doppler test (ECD), and neurosexual evaluation. Recently, we also focused our attention on a study of the microcirculation in the penis. The diagnostic methods of documenting the alterations in this circulation are optic probe video-capillaroscopy (OPVC) and laser-Doppler testing (LDF). At therapeutic level, drugs administered through the trans-epidermal barrier (TEB), appear to be effective in long term treatment (there is the problem of the movement through the tunica albuginea): we use "vasoactive patch" (troxerutine+ginkgo-biloba). Oxygen-ozone therapy (O2/O3) in the form of cycles of major self-transfusions acts directly on the erythrocytes, encouraging the release of O2 to the erection tissue even in the presence of minor angiopathy, with an effect on the haemo-rheological parameters. Still in the area of multi-points therapy it appears interesting to combine PDE5 inhibitors, at personalized dosage with O2/O3. We evaluated 520 patients, affected with ED with consequent MSF, responder to PGE1-ICI, normal sexological counselling and normal laboratory testing. These patients were treated with combined O2/O3 therapy, TEB complexation of Phosphatidyl-Choline-Troxerutine-Ginkgo-Biloba, first one week during two months, the latter t.i.d., topically for three months and pde5 inhibitors at personalized dosage (in relation to the number of sexual intercourses).

## Results and Conclusions:

All the patients showed good clinical results, with improvement in the erection failure rate. From August 2009 to June 2010: examined 270 patients (age 20–45), affected with Ipopsia, causing MSF, related to the following diagnoses: 180 cases: (1) Primary PE dysfunction (lifelong); (2) Self-reported advanced strength of this kind of sexual disorder; (3) Distress; (4) Higher negative feedback of sexual activity of their sexual partners (distress); 20 cases: primary PE complicated by ED; 60 cases: Acquired PE involved by several psychological and ambiental dysfunctions or prosthetic diseases 10 cases of ED. PE: methods and Diagnostic Assessment: complete ambulatorial uro-andrological screening, counseling and anamnestic data compilation and physical examination. Spermicoculture. Endocrine Evaluation: LH, testosterone, fT, prolactin, T3, T4, TSH. Penis biothesiometry. PES, PEC. Viricare Test after PGE1 intra-cavernous vasoactive injection (ED and PE). Previous pharmacological treatments: SSRI- Paroxetine 20–40 mg, which was subministrated at the beginning chronically, and on demand in a following phase. All these patients required to interrupt this therapy which was related to several collateral effects Insurgence. Our purpose was the employment of Dapoxetine (Priligy-TM) 30 mg on demand, Dapoxetine (Priligy) 60 mg on demand (ante and per-portas severe PE). Patients report high advantage on IELT (Intercourse Endovaginal Latency Time) (among 3 times more). Patients indicates transformed kind of compliance and quality level life approaching sexual partner. The most important problem seems related to the therapy cost mostly in the youngest male population. We are performing and scheduling other observations about effectiveness and the security in drug taking. 5 cases of ED were treated successfully using Selegilina (Jumex™), at personalized dosage.

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### THE CLINICAL IMPORTANCE OF SPERM DNA FRAGMENTATION ASSAY IN THE ASSESSMENT OF MALE INFERTILITY

S. Venkatesh<sup>1</sup>, A. Singh<sup>2</sup>, M.B. Shamsi<sup>1</sup>, R. Kumar<sup>3</sup>, D.N. Mitra<sup>2</sup>, R. Dada<sup>1</sup>. <sup>1</sup>Laboratory for Molecular Reproduction and Genetics, Department of Anatomy All India Institute of Medical Sciences, New Delhi, <sup>2</sup>Department of Transplant Immunology, All India Institute of Medical Sciences, New Delhi, <sup>3</sup>Department of Urology All India Institute of Medical Sciences, New Delhi, India

#### Introduction:

The conventional semen analysis is the first diagnostic step in the evaluation of male infertility and it fails to give information about the sperm DNA quality. Therefore the study was planned to analyze the sperm DNA integrity of infertile men with idiopathic causes to find the clinical significance of SCSA in the assessment of male factor infertility.

#### Methods:

Eighty infertile men and 40 fertile controls were included in the study. Semen analysis was performed as per WHO (1999) guidelines. Sperm chromatin structure assay (SCSA) was used to measure sperm DNA fragmentation. DNA fragmentation index (DFI) of the sperm was calculated by the ratio between the mean red fluorescence to the total of mean red and mean green fluorescence after gating sperm cells. The percent high DNA stainability cells (HDS) was calculated from the graph plot.

#### Results:

The idiopathic infertile men showed significantly ( $P < 0.0001$ ) higher average DFI compared to controls (43.15 vs 25.10). The threshold value of 30.28% was obtained to discriminate infertile men from fertile controls. The study population including infertile men and fertile controls with  $DFI > 30.28$  showed significantly lower sperm count, percent sperm motility

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