



# Male lifestyle and pathological conditions associated with couple infertility in a referral center in Italy: a cross-sectional study of 13452 male patients.

*C. Signorini,<sup>1</sup> S. Maruccia,<sup>2</sup> MB. Dal Canto,<sup>2</sup> J. Buratini,<sup>2</sup> C. Guglielmo,<sup>2</sup> M. Mignini Renzini,<sup>2</sup> D. Vizziello,<sup>1</sup> L. Carmignani,<sup>1</sup> S. Casellato<sup>2</sup>*

- 1. IRCCS Policlinico San Donato Milanese, Italy*
- 2. Istituti Clinici Zucchi, Monza, Italy*

# INTRODUCTION AND OBJECTIVE

- ▶ Unclear association between male infertility and a wide range of other comorbidities (oncologic, cardiovascular, autoimmune, and metabolic disorders).
- ▶ Purpose: to survey the data of 13452 male patients who referred to an infertility clinic in Italy and to investigate the relationship between couple infertility and overall male health.

# METHODS

- ▶ 13452 male patients enrolled between 01/2013 and 12/2019.
- ▶ Sociodemographic data, lifestyle and recreational habits were collected.
- ▶ WHO 2010 referral criteria were used to categorize semen parameters as pathological or normal.

# RESULTS

- ▶ Median age was 41.5 years (95% CI  $\pm 0,09$ ).
- ▶ Above all, 8209 (61.0% - Study Group) men had pathological semen parameters (any type), while 5243 (39.0% - Control Group) individuals reported normal semen parameter.

# RESULTS

## Characteristics of pathological spermograms

Parameters	N of patients (%) on the total of altered spermograms
Sperm concentration < 15mln/ml	3666 (44,6%)
Total sperm count < 39 mln	3689 (44,9%)
Motility < 32%	4695 (57,1%)
Normal morphology < 4%	6764 (82,3%)

# RESULTS

	Study group N (%)	Control group N (%)	P-value
Hypertension	941 (11,4%)	234 (4,4%)	<0,001
Diabetes mellitus	804 (9,7%)	178 (3,3%)	<0,001
Cardiovascular disease	613 (7,4%)	160 (3,0%)	<0,001
Testis cancer	140 (1.7%)	24 (0,4%)	<0,001
Active smokers	3336 (40.6%)	764 (14.5%)	<0,001
Alcohol consumers	208 (2.5%)	15 (0.2%)	<0,001
Allergic diseases	2031 (24.7%)	477 (9.0%)	<0,001

# CONCLUSIONS

- ▶ Our study showed that oncologic, cardiovascular, metabolic and allergic diseases are more frequent in infertile men with impaired semen analysis than in those with a normal exam.
- ▶ Additional researches required to clarify the relationship between couple infertility and overall men's health.