

## Abstracts

## NMA/AGSM/2022/BCS/002 - Status of Serum Prolactin Levels Among Male Cohorts in Infertile Couples

Collins Amadi<sup>1</sup>, \*Kinikanwo I. Green<sup>2</sup>

<sup>1</sup>Department of Chemical Pathology, Rivers State University, Port Harcourt, Nigeria. <sup>2</sup>Department of Obstetrics & Gynecology, University of Port Harcourt Teaching Hospital, Port Harcourt, Nigeria.

## Abstract

**Background:** Prolactin abnormalities adversely impact reproductive functions in afflicted infertile females but rarely documented among their male counterparts. Hence, the present study determined the influence of prolactin abnormalities on gonadal functions among male cohorts in infertile unions at the University of Port Harcourt Teaching Hospital (UPTH).

**Methodology:** This was a retrospective survey of 1,845 males of infertile unions who presented for reproductive endocrine evaluation following abnormal semen parameters between 2007 and 2018 in UPTH. Demographic, clinical, and laboratory variables were retrieved and evaluated among the studied cohorts.

**Results:** Hyperprolactinemia was observed in 16.7% of the studied cohorts with 9.6%, 5.0%, and 2.1% of mild, moderate, and severe grades, respectively. Hyperprolactinemic cohorts had depressed levels of follicle-stimulating hormone (FSH), luteinizing hormones (LH), and total testosterone (TT) which depressed further with worsening grades of hyperprolactinemia. An inverse relationship existed between prolactin levels and FSH (crude  $\beta$ : -0.651;  $p < 0.001$ ; adjusted  $\beta$ : -0.666;  $p < 0.001$ ), LH (crude  $\beta$ : -0.481;  $p < 0.001$ ; adjusted  $\beta$ : -0.536;  $p < 0.001$ ), and TT (crude  $\beta$ : -0.525;  $p < 0.001$ ; adjusted  $\beta$ : -0.546;  $p < 0.001$ ) in crude analysis which was amplified following adjustment for age and body mass index (BMI). The most depressive influence was on serum TT (crude hazard ratio [HR]: 35.185;  $p < 0.001$ ; age and BMI-adjusted HR: 35.086;  $p < 0.001$ ). Erectile dysfunction was the most isolated sexual abnormality ( $n=111$ ; 35.6%) observed among all the hyperprolactinemic participants which was more pronounced ( $n=15$ ; 38.5%) among those with severe hyperprolactinemia.

**Conclusion:** The study revealed a high frequency of hyperprolactinemia in association with endocrine and sexual dysfunctions among the studied cohorts. Hence, infertility evaluation should include the determination and management of prolactin abnormalities among males in infertile unions.

**Keywords:** Serum Prolactin; Male Cohort; Infertile Couple.

**Corresponding Author:** \* Kinikanwo Green, Department of Obstetrics & Gynaecology, University of Port Harcourt Teaching Hospital, Port Harcourt, Nigeria, [kinikanwo.green@uniport.edu.ng](mailto:kinikanwo.green@uniport.edu.ng)

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