Presentation Abstract Submission

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Research Title 1	Seroprevalence of anti-Herpes simplex virus type 2 IgG antibodies and its associated factors in fertility-treatment-seeking population: a cross-sectional survey in the Abu Dhabi Emirate

Abstract:

Objectives: Herpes simplex virus type 2 (HSV-2) is a common genital infection affecting more than 400 million individuals globally. In the United Arab Emirates (UAE), the burden of HSV-2 has not been reported. This study investigated the anti-HSV-2 IgG seroprevalence in patients seeking fertility treatment and characterizes patients with anti-HSV-2 IgG seropositivity. Methodology: A cross-sectional sample of patients seeking fertility treatment in a major fertility clinic in Abu Dhabi, UAE was surveyed from April to May 2021. Patients were consecutively invited to complete self-administered questionnaires and provide blood for HSV-2 testing. Information on sociodemographic, medical history, and infertility were collected. Serum specimens were screened using an enzyme-linked immunosorbent assay for anti-HSV-2 IgG quantitative detection. Results: Two-hundred and ninety-nine patients were surveyed and provided blood samples. The mean age of the patients was 35.9 ± 6.8 (mean ± standard deviation [SD]) years with 89.3% being women. Sixty-six percent were overweight or obese, 25.0% had at least one chronic comorbidity, and 19.6% reported ever-had genital infection. More than two-thirds (68.3%) of the patients were infertile for ≥ 6 months. Of the 42 infertile males, 69.0% had an abnormal semen analysis. Anti-HSV-2 IgG was detected in 12.4% of patients. Anti-HSV-2 IgG seropositive patients had higher mean age (39.5 versus 35.4 years; $p < 0.001$) compared to seronegative patients. Anti-HSV-2 IgG seropositivity was more common in males (15.6%) than females (12.0%), in patients with secondary

(14.1%) versus primary (9.2%) infertility, or in males (10.3%) with abnormal versus normal (7.7%) semen. Conclusion: Exposure to HSV-2 at any time in patients seeking fertility treatment in the UAE was found to be slightly common in more than one out of 10 patients. Tailored health campaigns on HSV-2 prevention are warranted.

Research title 2:	Characterization of fertility clinics attendees in the Abu Dhabi Emirate, United Arab Emirates: a cross-sectional study

Abstract:

Objectives: Primary and secondary infertility affects 8%–10% of couples worldwide. This study describes the primary and secondary infertile populations in Abu Dhabi Emirate and identifies factors associated with primary infertility. Methods: A cross-sectional survey was conducted in fertility clinics in Abu Dhabi Emirate, United Arab Emirates (UAE). Consecutive patients seeking fertility treatment between December 2020 and May 2021 were interviewed and their medical records were extracted. Results: The median (IQR) age, median age at marriage (IQR), and body mass index (BMI) (IQR) of the 928 included patients were 35.0 (31.0–41.0) years, 24.0 (20.0–28.0) years, and 28.3 (24.5– 32.4) kg/m2, respectively. 72.0% were obese or overweight and 95.2% had been married for >1 year. Infertility of unspecified origin was the most common documented cause of infertility (91.4%). Secondary infertility (62.5%) was more frequent than primary infertility (37.5%). Patients with primary infertility were more likely to be younger (OR, 0.94, 95% CI: 0.93–0.97), older at puberty (OR, 1.12,95% CI: 1.03–1.22) and at marriage (OR, 1.06, 95% CI: 1.04–1.09), current smokers (OR, 1.49, 95% CI: 1.00–2.23), and infertile for >12 months (OR, 1.50, 95% CI: 1.01–2.23), and to have a lower BMI (OR, 0.97, 95% CI: 0.94–0.99). Patients with primary infertility were less likely to have consanguineous marriages (OR, 0.37, 95% CI: 0.26–0.52), diabetes mellitus (OR, 0.48, 95% CI: 0.27–0.85), and a family history of infertility (OR, 0.72, 95% CI: 0.53–0.99). Conclusion: Secondary infertility was more common than primary infertility among attendees at these fertility clinics. Several preventable infertility-related factors were common in this population