

Effect of different doses of hCG as ovulation trigger on progesterone level in intrauterine insemination (IUI): HSNZ experience

Nik Farhan Z, Siti Nabillah AR, Athiqah A, Fathiah Z, Zafirah AK, Evariena L, Atiqah S, Anis A, Nasuha Y

Reproductive Services Unit, Department of Obstetrics and Gynaecology, Hospital Sultanah Nur Zahirah, Kuala Terengganu

ABSTRACT

Introduction: The current study examined a cohort of women undergoing ovulation induction cycles of IUI and aimed to assess the effect of different doses of hCG. It is aimed to evaluate the effect of human chorionic gonadotropin (hCG) injection as a trigger for ovulation on corpus luteal function in producing progesterone hormone in IUI cycles. **Materials and Methods:** This retrospective cohort study included 135 IUI cycles in infertile couples during the period from September 2022 to December 2023. To control for other confounding factors, our analysis only included patients who had serum progesterone level taken 7 days after IUI. Dosages of hCG injection was selected as per clinician's preference. The evidence of ovulation on IUI day and serum Progesterone level on day 7 post IUI were measured. Progesterone values were compared between all three groups using analysis of variance (ANOVA). Further test of significance among these groups was done using least significant difference (LSD). **Results:** 89 patients were given hCG 5,000 IU (Group A), 20 injected 6,500 IU (Group B) and 26 received 10,000 IU of hCG (Group C). All groups had comparable demographic and background characteristics. Mean Progesterone levels were 59.9 in Group A, 51.39 in Group B and 38.32 in Group C. The result was statistically significant with p value of 0.015. LSD test showed hCG 5,000 IU and 6,500 IU were equivalent and more effective than 10,000 IU. **Conclusions:** HCG levels of 5,000 IU and 6,500 IU were equivalent to each other in keeping adequate corpus luteum function and better cost effective than the 10,000 IU injection.