significant difference, in comparison to the other two categories (Table 6; mES<16=15.6%, mES>16=31%, p=0.003). Among women who got pregnant [β-hCG(+)], the highest clinical pregnancy rate was observed in the ideal mES<16 category (71%), with statistically significant difference, in comparison to the other two groups [Table 6; mES<16 (45%), mES>16 (39%), p=0.042]. It is also noteworthy, that statistically significant less spontaneous miscarriages occurred in the mES<16 category(29%), compared to the other two categories [Table 6; mES<16 (55%), mES>16 (61%), p=0.042].

4. Discussion

It is known that high E2 levels on the day of β-hCG triggering result in a higher number of collected oocytes, thus leading to an increased number of embryos. However, studies have shown that when more than 11 oocytes are collected, fertilization rate decreases (Pellicer A et al, 1989). In fact the oocytes that were not fertilized were found to exhibit an increased incidence of cytoplasmic immaturity (Tarín J J et al, 1992). Moreover, when 20 oocytes are collected, both fertilisation rate and maturity status of oocytes significantly deteriorate (Gelety T J et al, 1995).

Our study showed that in oocyte donor stimulation cycles E2 levels and E2/oocyte on the day of β-hCG trigger, do not affect implantation and clinical pregnancy rates. E2 and E2/oocyte levels, however, were positively associated with the ES on day 2. We also found that ES was positively associated with implantation and clinical pregnancy rate. Conversely, the highest spontaneous miscarriage rates were observed in the slow (ES<16, 55%) and fast (ES>16, 61%) compared to the ideal embryos on day 2 (ES16, 29%), in agreement with Roberts SA (Roberts SA et al, 2010) who suggested that both “fast” and “slow”