OBJECTIVE
There are two protocols for frozen-thawed embryo transfer (FET) either natural cycle (natural FET) or hormone replacement cycles (medicated FET). However, there is lack of evidence to recommend any one particular protocol for endometrial priming regarding ART outcomes after FET. Therefore, we compared these two protocols by patient age groups such as younger than 39 years or older than 40 years old.

METHODS
Two thousand eighty-nine cycles of FET from January, 2013 to July, 2014 were retrospectively analyzed. Patients under 39 or younger (Group A) were 1235 cycles and patients between 40 and 49 years old (Group B) 854 cycles. Pregnancy rates (PR) between Group A and B were compared with respect to natural FET or medicated FET. Positive pregnancy was defined when serum βHCG was higher than 25mIU/ml on 12 days after transfer.

RESULTS
There was no significant difference of PR in group A between natural (40.3%; 102/205) and medicated FET (45.3; 445/982). However, PR in natural FET (29.3%; 53/181) was significantly higher than medicated FET (22.9%; 154/673) in group B.

CONCLUSION
Although no difference in PR was noted between natural and medicated FET in all age groups. However, natural FET achieved higher PR in older patients. The present study suggests that natural FET is recommended for the patients older than 40 years old if applicable.