Background: Gestational Hypertension (GH) still remains as one of the main causes of high maternal and perinatal morbidity and mortality worldwide. The highest incidence of this condition is among primigravidae of about 10%-15%. However, it was noted that the incidence of GH in primigravidae who conceived following Assisted Reproductive Technique (ART) or intrauterine insemination (IUI) and who were supplemented with dydrogesterone during the first trimester was low.

Aim: To determine whether dydrogesterone supplementation during the first trimester can reduce the incidence of GH among primigravidae.

Method: A prospective cross-sectional comparative study was undertaken in 2010 on 116 primigravidae (Study Group) who conceived following ART or IUI and supplemented with dydrogesterone up to 16 weeks gestation. They were each matched for age and race at 16 weeks gestation with a control patient from the early pregnancy clinic who were primigravidae (n=116) who conceived spontaneously and were without dydrogesterone supplementation.

Findings: The incidence of GH in the Study group was significantly lower than the control group (1.7% vs 12.9%, p = 0.001). The incidence of fetal distress was also significantly lower in the Study group compared to the control group (4.3% vs 18.1%, p=0.001).

Interpretation: Dydrogesterone supplementation during the first trimester significantly reduced the incidence of GH and fetal distress in primigravidae.

Key words: Dydrogesterone, gestational hypertension, primigravidae