Efficacy of post placental insertion of intrauterine contraceptive device

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Objective: To determine efficacy of post placental insertion of intrauterine contraceptive device (IUD).

Methodology: This prospective study was carried out at Shaikh Zaid Women Hospital, Larkana from January 15, 2016 to January 14, 2017. A total of 220 subjects willing for birth control were inserted IUD at the time of delivery. IUD was inserted after 10 minutes of expulsion of placenta. Child and patients was followed till six months to record the expulsion of IUD. Efficacy of the IUCD was recorded. Results. The average age of the women was 29.66±3.89 years. Efficacy of post placental insertion of IUD was observed in 90.45% cases.

Conclusion. Post placental insertion of IUCDs is an effective, useful, safe, convenient and low-cost procedure for early postpartum contraception. (Rawal Med J 201;43:456-458).

Key Words. Intrauterine contraceptive device, post placental insertion and contraceptive methods

INTRODUCTION
The intrauterine device (IUD) is one of the most widely used contraceptive method in the world. More than 150 million women use IUDs, mainly in emerging countries, particularly in Southeast Asia and in the Middle East. Post-partum period is one of the critical times when both women and newborn need a special and integrated package of health services. Pregnancies taking place within 24 months of a previous birth have a higher risk of adverse outcomes like abortions, premature labor, post-partum hemorrhage, low birth weight babies, fetal loss and maternal death. In India, 65 percent of women in the first year post-partum have an unmet need for family planning. The main disadvantage of IUD contraception is the rate of expulsion and side effects, such as pain and bleeding, which may necessitate its early removal. The mode of delivery, physical properties of the IUD and the method and timing of insertion are all potential factors that may influence the outcome of IUD use. One study reported that 76% of the patients had no expulsion of IUCD insertion soon after placental delivery while another recorded its cumulative expulsion rate at the end of 6 month to be 10.68 percent (89.32% no expulsion) showing a significant variation. Therefore, this study was conducted to clarify the efficacy of device.

METHODOLOGY
This prospective study was conducted at Shaikh Zaid Women Hospital, Larkana Pakistan from January 15, 2016 to January 14, 2017. Subjects with age 20-45 years, and any parity were included in the study while women with signs of uterine infection, uterine abnormalities e.g. ruptured uterus (by medical records) were excluded from the study. A total of 220 subjects were enrolled from labor room after approval from Ethical Review Committee. IUD was inserted after 10 minutes of expulsion of placenta. Child and patients were followed till six months to record the expulsion of IUD. Efficacy of the IUCD was recorded.

Data were analyzed in SPSS version 16.0. Stratification for age and parity was recorded to address the effect modifiers. Chi square test was applied. P<0.05 was considered as significant.

RESULTS
A total of 220 subjects were included in the study. Average age of the women was

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29.66±3.89 years (95% CI: 29.14-30.18). Out of 220 cases, 127(57.73%) had 2 to 3 parity, 83 (37.73%) had 4 to 5 parity and 10(4.55%) had more than 5 parity.

Table 1. Efficacy of IUD with respect to age groups.

<table>
<thead>
<tr>
<th>Age Groups (Years)</th>
<th>Efficacy</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes n=199</td>
<td>No n=21</td>
</tr>
<tr>
<td>≤ 25 Years</td>
<td>27(87.1%)</td>
<td>4(12.9%)</td>
</tr>
<tr>
<td>26 to 30 Years</td>
<td>86(86%)</td>
<td>14(14%)</td>
</tr>
<tr>
<td>&gt;30 Years</td>
<td>86(96.6%)</td>
<td>3(3.4%)</td>
</tr>
</tbody>
</table>

Chi-Square=6.63; p=0.036

Table 2. Frequency to expulsion of IUD with respect to parity.

<table>
<thead>
<tr>
<th>Parity</th>
<th>Efficacy</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes n=199</td>
<td>No n=21</td>
</tr>
<tr>
<td>≤ 25 Years</td>
<td>112(88.2%)</td>
<td>15(11.8%)</td>
</tr>
<tr>
<td>2 to 3</td>
<td>78(94%)</td>
<td>5(6%)</td>
</tr>
<tr>
<td>&gt;5</td>
<td>9(90%)</td>
<td>1(10%)</td>
</tr>
</tbody>
</table>

Chi-Square=1.94; p=0.37

Efficacy of IUD was observed in 90.45% cases and efficacy was significantly higher in above 30 years of age cases as compare to below 30 years of age cases (p=0.036) (Table 1). Efficacy was not significant among different parity status of the women (Table 2).

DISCUSSION

For women with limited access to medical care, term delivery provides an important opportunity to address the need for contraception. Insertion of an IUD immediately after delivery has been recommended by the WHO, as one of the safe and effective methods of temporary contraception. A Turkish study found that 95% of postpartum and 88% of post abortal women were willing to use a contraceptive method immediately after termination of pregnancy, however more than 70% of the women admitted for delivery or termination of pregnancy leave the institution without receiving a contraceptive method. Immediate insertion of an IUD after the delivery of placenta satisfies the basic requirements of any contraceptive methods. This approach is more applicable to our country where delivery may be the only time when a healthy woman comes in contact with health care personnel. Timing of insertion, counseling and provider training are important factors for IUD insertion in post-partum period, as quoted in United Nations Population Information Network (UN-POPIN) report. Of these, the timing of insertion is important as it influences the risk of expulsion. Ideally, post-partum insertion should take place within 10 min of placental delivery or later till 48 hour of delivery. The risk of expulsion is higher if inserted after 48 hour of delivery. In our study, in 220 women IUD was inserted after 10 minutes of expulsion of placenta.

Efficacy of post placental insertion was observed in 90.45% cases in our study. There is debate whether differences in the expulsion rates are related to the time of insertion, type of IUD used, technique of insertion and skill and experience of the service providers. The immediate postplacental insertion of IUD lost acceptance after a WHO-sponsored multicenter trial reported "unacceptably high pregnancy and expulsion rates." A recent study from Turkey reported a cumulative expulsion rate of 12.3% in the first year following early post-placental insertion. Kafiya et al reported that postpartum insertion of IUD should not being part of routine hospital services as expulsion rate was found to be high in the Early Postpartum and Immediate Post placental groups at the 6th-month follow-up visit as compared with some other studies. Morrison et al reported the efficacy rate same as ours. A study from China reported the rate of expulsion as 12.713.3%, which is similar to results of our study.

CONCLUSION

Immediate postplacental insertion of IUCDs is an effective, useful, safe, convenient and low-cost procedure for early postpartum contraception. This procedure does not increase the hazard of infection or the rate of uterine perforation and safe in lactating mothers.
REFERENCES


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