Intrauterine contraception after medical abortion

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- Medical abortion is first choice for a majority of women
- Although many advantages – non-invasive procedure, possibility for privacy at home, self diagnostic test at home
- IUC requires an extra visit to the abortion clinic

www.womenonweb.org
The link between contraceptive prevalence and abortion

WHO; Progress in Reproductive Health, 2003
Post-abortion contraception

- A large proportion of abortions are repeat abortions.
- In 2005, the rate of repeat abortion ranged from 30% in Finland up to 47% in the USA,
- UK (32%) and Sweden (38%)
Risk factors for repeat abortions

Finnish cohort 1269 medical abortion followed 49.2+-8 mo
Counselling by physicians and nurse midwifes, FU at 2-3 w
25.2% postponed use of contraception

Risk factors:
Prior abortion, Parous, Young age, Smoking,
Not attending FU visit

Postponing contraception - highest rate of repeat abortion

Heikinheimo et al, 2008
Risk factors for repeat abortions

Reduced risk:
- Immediate initiation of contraceptive in contrast to postponed
- LARC more effective vs OC/condom
- IUC most effective to avoid another abortion

LNG-IUS lowest cumulative risk at 5yrs

Heikinheimo et al, 2008
IUC use for young and nulliparous

Increasing use also among nulliparous women

Safe and cost-effective

High continuation rate

Low failure rate
Intrauterine contraception (IUC)

- Cu-IUD (Nova-T, Grafenberg’s ring, Frameless IUC, IUB)
- LNG-IUS (Progestasert, Mirena, Kayleena, Jaydess)
Intrauterine contraception
Percentages of women experiencing an unintended pregnancy with typical versus perfect contraceptive use (Trussell and Wynn, 2008). aWithout spermicides. bWith spermicidal jelly or cream. cIn parous women [nulliparous women: 16% (typical) and 9% (perfect)]. dTypical use for all met

Methods

- Male sterilization
- Female sterilization
- Subdermal progestin implant
- Levonorgestrel IUS
- Copper IUD
- Progestin-only injectable
- Vaginal ring
- Transdermal patch
- CDC/POP
- Male condom
- Diaphragm
- Sponge
- Fertility awareness
- Withdrawal
- Spermicides
- No method

% Women experiencing unintended pregnancy within the first year of use


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Figure 2. Probability of Not Having an Unintended Pregnancy, According to Contraceptive Method and Age.
All methods of contraception, including intrauterine devices and hormonal contraceptives, can be considered for use after abortion, as long as attention

**Contraception following abortion**

56. Before she is discharged following abortion, future contraception should have been discussed with each woman and contraceptive supplies should have been offered if required. The chosen method of contraception should be initiated immediately following abortion.

57. Intrauterine contraception can be inserted immediately following a first- or second-trimester termination of pregnancy.
IUC insertion after medical abortion

Insertion usually takes place at the follow-up visit after 3-4 weeks, or during the first menstruation

In contrast to surgical vacuum aspiration, where insertion usually is performed immediately
Most women, 83%, ovulate the first month after abortion (no difference between methods)

Ovulation may return as early as 8-10 days after abortion

Screiber et al, Contraception, 2011
Lähteenmäki et al, Clin Endocrinol, 1978
More than 50% of women reinitiate sexual activity within 2 weeks after induced abortion.

16% have unprotected intercourse during the first week after medical abortion.

Boesen et al, Acta Obstet Gynecol, 2004
Sääv et al, PLOS one, 2012
41% had unprotected sex before routine insertion at 3-4 weeks

16% had unprotected sex during the first week
Post-abortion contraception should be started within 1 week post medical abortion.

Counseling at the first outpatient visit gives time to obtain the contraceptive for immediate postabortion start.

Contraceptive counselling critical component of the abortion service.
Use after 6 months considerably higher when inserted immediately after surgical abortion
How many turn up for insertion?


76%


86%

How many returns in ordinary clinic?
Many women do not return for follow-up!

Higher rate of insertion when women are scheduled early (p=0.03)

Early insertion 94%

Delayed insertion after 3-4 weeks 86%

Sääv et al PLOS One, 2012
Table 2. Outcomes of Early versus Delayed IUC insertion after medical abortion.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Early insertion n=62</th>
<th>Delayed insertion n=54</th>
<th>Difference in observed Percentage (%)</th>
<th>95% Confidence interval</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expulsion all</td>
<td>6/62 (9.7)</td>
<td>4/54 (7.4)</td>
<td>2.3</td>
<td>-9.2–13.4</td>
<td>0.54</td>
</tr>
<tr>
<td>Copper IUD</td>
<td>2/30 (6.7)</td>
<td>0/25 (0.0)</td>
<td>6.7</td>
<td>-7.3–21.5</td>
<td>0.25</td>
</tr>
<tr>
<td>LNG-IUS</td>
<td>4/32 (12.5)</td>
<td>4/29 (13.8)</td>
<td>1.3</td>
<td>-20.3–16.9</td>
<td>0.99</td>
</tr>
<tr>
<td>Use at 6 months all</td>
<td>42/62 (67.7)</td>
<td>39/54 (72.2)</td>
<td>4.5</td>
<td>-20.9–12.5</td>
<td>0.55</td>
</tr>
<tr>
<td>Copper IUD</td>
<td>24/30 (80.0)</td>
<td>18/25 (72.0)</td>
<td>8.0</td>
<td>-14.7–31.2</td>
<td>0.38</td>
</tr>
<tr>
<td>LNG-IUS</td>
<td>18/32 (56.2)</td>
<td>21/29 (72.4)</td>
<td>16.2</td>
<td>-38.6–8.2</td>
<td>0.20</td>
</tr>
</tbody>
</table>

IUC denotes intrauterine contraception, IUD intrauterine device and LNG-IUS levonorgestrel intrauterine system.

http://journals.plos.org/plosone/article?id=info:doi/10.1371/journal.pone.0048948
"Expulsion rates were comparable; 12% (8 of 69) in the immediate group compared with 11% (7 of 65) in the delayed group."
Table 3. The number of days of bleeding pattern following Early versus Delayed IUC insertion evaluated at 1 and 6 months follow-up.

<table>
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<tr>
<th>Outcome</th>
<th>Early insertion (n = 62)</th>
<th>Delayed insertion (n = 54)</th>
</tr>
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<tbody>
<tr>
<td>Total BD at 1 month</td>
<td>19 (0–28)</td>
<td>20 (0–28)</td>
</tr>
<tr>
<td>Heavy</td>
<td>0 (0–10)</td>
<td>0 (0–11)</td>
</tr>
<tr>
<td>Normal</td>
<td>3.5 (0–28)</td>
<td>4 (0–21)</td>
</tr>
<tr>
<td>Sparse</td>
<td>12.5 (0–28)</td>
<td>9 (0–28)</td>
</tr>
<tr>
<td>Total BD at 6 months</td>
<td>6 (0–16)</td>
<td>5.5 (0–28)</td>
</tr>
<tr>
<td>Heavy/Normal</td>
<td>2 (0–5)</td>
<td>1.5 (0–5)</td>
</tr>
<tr>
<td>Sparse</td>
<td>3 (0–21)</td>
<td>4 (0–28)</td>
</tr>
</tbody>
</table>

Values are median (range) if otherwise not indicated. IUC denotes intrauterine contraception and BD bleeding days measured during the last proceeding month at one and six months after IUC insertion. Bleeding was characterized as number of days with heavy, normal or sparse bleeding as compared with menstrual bleeding. Only the worst category is reported per patient per day.

doi:10.1371/journal.pone.0048948.t003
Ultrasound can be used to exclude ongoing pregnancy or missed abortion, but endometrial thickness is of no use and cannot predict IUC expulsion.

If expulsion of the pregnancy cannot be confirmed visually or by ultrasound, a semi-quantitative u-hCG test can be used to exclude ongoing pregnancy.
Recommendations

- Include contraceptive counseling in the first visit to the clinic
- Exclude ongoing pregnancy
- Early insertion of IUC during the first week after medical abortion should be offered as a routine
Future development

Assessment of immediate insertion of IUC after medical abortion – requires ultrasound diagnosis of successful expulsion?

Self-diagnosis of pregnancy
Self-counseling regarding contraception using telemedicine
Home use of medication for medical abortion
Self-diagnosis of successful treatment
One-stop visit for follow-up and IUC insertion
Thank you!

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