Sex and Birth Control: Are they connected?

Ellen Wiebe MD
Erin

- 26 year old G1 P0 Caucasian
- Started on OC at 16 for dysmenorrhea
- Stopped OC 6 months ago
- In steady relationship x 2 y
- Presenting for abortion
Erin

- Says she discovered she was a different person when she went off OC – less moody and more sexual
- Doesn’t want hormones again but doesn’t want to get pregnant for about 4 years
Erin

- What are you going to offer her?
- Do hormonal contraceptives really affect sex drive?
Schaffir J. Hormonal contraception and sexual desire: A critical review. (30 YEARS)

“Although sexual side effects have been noted in various subgroups of women using hormonal contraception, no consistent pattern of effect exists to suggest a hormonal or biological determinant “
Reference sources:
sexual side effects of hormonal contraception

- Compendium of Pharmaceuticals (CPS): “less than 1%”
- Physicians Desk Reference (PDR): “a causal association has been neither confirmed nor refuted”
- Up-To-Date on-line reference: no mention of sexual side effects

- 150 women in Edinburgh + Manilla
- Surgical sterilization
- Assessed by daily ratings and interviews at baseline month, 4 treatment months


- COC: 48% Edinburgh women c/o decreased sexual interest
- Borderline effects in Manilla women and POP
Sanders SA, Graham CA, Bass JL, Bancroft J.

A prospective study of the effects of oral contraceptives on sexuality and well-being and their relationship to discontinuation.


- 79 in stable committed relationships x 1y
- 38% continued OCs, 47% discontinued, and 14% switched to another OC
Sanders SA, Graham CA, Bass JL, Bancroft J.

A prospective study of the effects of oral contraceptives on sexuality and well-being and their relationship to discontinuation.


Logistic regression: 3 significant predictors of discontinuation

- Frequency of sexual thoughts – p=.029
- Sexual arousability – p=.032
- Emotional side effects - .031
Our Study

- Questionnaires in waiting rooms
- Primary care patients (rural, urban, university)
- Abortion and IUD patients
- Retrospective experience with side effects of OC
**Sexual side effects of OC in past n=966**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage</th>
<th>Count</th>
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<tbody>
<tr>
<td>Less interest in sex</td>
<td>30%</td>
<td>286</td>
</tr>
<tr>
<td>Less desire/thoughts</td>
<td>25%</td>
<td>242</td>
</tr>
<tr>
<td>Less arousability</td>
<td>25%</td>
<td>243</td>
</tr>
<tr>
<td>Dryness/pain with sex</td>
<td>20%</td>
<td>190</td>
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Let’s all practice evidence-based medicine

...and the evidence is...

- Sexual side effects of hormonal contraception occur frequently (25-48%) and are the most likely reason for quitting

- Sexual effects of hormonal contraception may be positive, negative or neutral and probably not caused by hormones
Why the discrepancies?

- Funding source of studies
- Which questions were asked
- Relationship status of subjects
- Baseline sexual interest
- Cultural/racial/ethnic differences
Sex hormone binding globulin
What is sex hormone binding globulin?

- Binds testosterone
- Increases most with estrogenic OC
- Related to improved acne and increased risk of thrombo-embolism
- Is useless as a screening test due to individual variation
Graham CA, Bancroft J, Doll HA, Greco T, Tanner A.

Does oral contraceptive-induced reduction in free testosterone affect women’s sexuality?


Free T is related to decrease in sexual thoughts (r= .36, p= .006)

Some women were affected and some were not despite drops in Free T
Bottom line

- Hormonal contraception decreases sexual thoughts, desire and arousability in a susceptible women (?25%) and has no effect on others
Erin

- What can we offer Erin?
- Are some hormonal contraceptives better for sex than others?
- What about the mood changes she complained of? Are they related to the sexual complaints?
Wallwiener M, Wallwiener L, Seeger H, Mueck AO, Bitzer J, Wallwiener CW.

Effects of sex hormones in oral contraceptives on the female sexual function score: A study in German female medical students.

Contraception 2010

- 1086 German medical students
- Hormonal contraception was related to lower sexual functioning scores (FSFI), especially desire and arousal
- No difference with different OC
Our study

- No differences with different hormonal contraceptives
Sabatini R, Cagiano R.
Comparison profiles of cycle control, side effects and sexual satisfaction of three hormonal contraceptives.

“two crucial points for acceptability, compliance and continuation: poor cycle control and disturbance of sexual intercourse due to vaginal dryness and loss of desire”

Vaginal ring had less sexual side effects than the two OC
<table>
<thead>
<tr>
<th></th>
<th>No mood side effects</th>
<th>Any mood side effects</th>
<th>P-value</th>
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</thead>
<tbody>
<tr>
<td><strong>No sexual side effects</strong></td>
<td>85% (138)</td>
<td>47% (68)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td><strong>Any sexual side effects</strong></td>
<td>15% (24)</td>
<td>53% (76)</td>
<td></td>
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</table>
Flora

- 36 y o married Filipina G5P2 presenting for 3rd abortion
- Finished family but doesn’t want surgical sterilization
- Doesn’t want hormones or IUDs
Flora

- What do you think is going on?
- How can we help her not have more abortions?
The Effects of Steroidal Contraceptives on the Well-Being and Sexuality of Women: A Double-Blind, Placebo-controlled, Two-Centre Study of Combined and Progesterone-only methods.


- COC: 48% Edinburgh women c/o decreased sexual interest
- Borderline effects in Manilla women and POP
Why were Scottish and Filipina women reacting differently to HC?

- Baseline sexual thoughts lower in Filipinas
- Probably due to cultural differences of women’s expectation of sexual pleasure
Flora

- After more discussion, she said that it was her husband who wanted the sex
- She agreed with the counselor who suggested that if she used a long-acting or permanent contraceptive, he would expect more sex
Flora

- How could we help her not have any more abortions?
- Or is that the wrong place to focus?
WHO definition of Sexual Health

“Sexual health requires the possibility of having **pleasurable** and safe sexual experiences free from coercion, discrimination and violence.”
Sue

- 32 y o G2P1 married woman
- Presenting for an abortion
- Asks “can you tell when exactly I got pregnant?”
- Using no contraception
Sue

- Wanting a second child with her husband
- Had a “one-night-stand” with a man of a different race
Sue

- How common is this situation?
- How can we help?
Bellis MA, Hughes K, Hughes S, Ashton JR. 
Measuring paternal discrepancy and its public health consequences. 
J Epidemiol Community Health. 2005 Sep;59(9):749-54.

- Rates between 1% and 30% in 17 studies
- Higher in low socio-economic groups
- Higher in poor quality relationships
- Higher in C/L vs married couples

Probably higher in abortion clinics than maternity wards
Oinonen KA, Mazmanian D.
Facial symmetry detection ability changes across the menstrual cycle.
Biol Psychol. 2007 May;75(2):136-45.

- Women prefer different men near ovulation than at non-fertile times
Let Sue know she is not alone
Understanding biological motivations may help one control urges which do not fit with one’s life plan
How do you ask the sex questions?
Mixed methods study using semi-structured interviews and questionnaires

- Interviews used open-ended questions about side effects from hormones
- Questionnaires used specific questions
Wiebe ER, Trouton KJ, Dicus J.
Motivation and experience of nulliparous women using intrauterine contraceptive devices.

<table>
<thead>
<tr>
<th></th>
<th>Interviews with open-ended questions n=40</th>
<th>Questionnaires with specific questions n=138</th>
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<tbody>
<tr>
<td>Mood side effects</td>
<td>8% (3)</td>
<td>58% (80)</td>
</tr>
<tr>
<td>Sexual side effects</td>
<td>3% (1)</td>
<td>36% (50)</td>
</tr>
<tr>
<td>Physical side effects</td>
<td>48% (19)</td>
<td>37% (51)</td>
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Questions on our questionnaire

Did you notice any of the following side effects while you were on the contraceptive and which went away after you stopped it?

- Less interested or motivated to have sex:
- Less sexual desire, fantasies or thoughts:
- Less easily aroused (feeling sexually excited, wet or having orgasms when touched sexually by yourself or your partner)
- More pain or dryness when having sex:
How can you ask the questions?

- Any statement or question with the word “sex” seems to work
- “any physical, emotional or sexual side effects?”
- “Some women notice sexual effects from the pill, especially decreased sexual thoughts and arousability. Do you think you have any?”
YES, sex and birth control are connected

- About 25% of women will have decreased sexual thoughts and arousability on HC
- Enjoying sex is related to motivation for birth control
- The type of hormone, IUD or barrier may affect sexual pleasure
- There are biological drives to reproduce at odds with logical life plans
ASK THE QUESTIONS!