NARCHI BULLETIN

SJH, Issue 1, July 2018

REACHING THE UNREACHED

NARCHI

Delhi Branch

Dedicated to "WORLD POPULATION DAY"

"Ek Saarthak Kal Ki Shuruwaat Parivaar Niyojan Ke Saath"

NARCHI Secretariat

Room No. 001, Department of Obstetrics & Gynaecology,

Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi-110029

Team NARCHI, Safdarjung Hospital (2018-2020)

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President's Message

Dear NARCHI members,

I feel privileged to have become the President of Delhi Chapter of NARCHI. I am truly blessed to have an enthusiastic and dedicated team both at VMMC & Safdarjung hospital as well as outside. The theme of NARCHI Delhi for the next two years is 'Reaching the unreached'. We have already done a fair amount of work in this direction with the help of our outreach teams but sky is the only limit and still, a lot needs to be done.

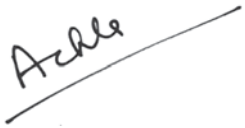
Our first issue celebrates the 'World Population Day', which is a day to focus our attention on the urgency and importance of population issues. The United Nations Population Fund's (UNPF) international theme for this year is "Family planning is a human right" and this year also marks 50th anniversary of the 1968 International conference on Human rights, where family planning was, for the first time, globally affirmed to be a human right.

We are fully committed to the "The National Association of Reproductive and Child Health of India (NARCHI), Dr C S Dawn Indian College of Maternal and Child Health" (NARCHI-ICMCH) goal of stabilising the Indian population and request all our members to continue to work for the population stabilisation.

On the popular demand of our members, we have changed the month of annual conference 2018-19 to February 2019, because of too many conferences being organised in Delhi between September to November.

All suggestions are very welcome.

"For most women, including women who want to have children, contraception is not an option; it is a basic health care necessity"- Louise Slaughter



Dr Achla Batra

Secretary's Message

Greetings to all!

At the outset, I thank our dynamic NARCHI president who has entrusted me to carry on the responsibility of Secretary of this prestigious society. It will be my continuous and dedicated effort to bring forth the best to achieve the goal of NARCHI this year "*Reaching the Unreached*".

With my efficient team's support, we plan to accomplish the unique vision of reaching out to the practitioners and masses away from mainstream and help improve the standards of reproductive health in our society. Organization of health camps, CMEs and training programs on important aspects of maternal health for postgraduates, nursing staff, ASHA workers and local practitioners will definitely be fruitful in skill building and a step forward towards equity of health care especially in the unreached areas of our society.

As part of an important national organization, we wish to deal with the key issues faced by practitioners in their routine practice and provide an innovative, multi-disciplinary and comprehensive overview of the latest research developments in our field. I hope with our meticulous efforts we will be able achieve these milestones. To reiterate our academic endeavors, we will be bringing out a NARCHI bulletin in every quarter on all important issues of women health-care. To start with our dedicated editorial team has brought out this special issue on the occasion of World Population Day.

"ALONE WE CAN DO SO LITTLE, TOGETHER WE CAN DO SO MUCH" ..... Helen Keller.

Thus, I invite active participation from all our NARCHI members to come forward and contribute towards our vision. We started our journey in March 2018 and already receiving overwhelming response in all our activities. I wish to receive the continued support from all of you. At the same time, we would be glad to receive suggestions which would enrich us in every way.

May Almighty bless us all and guide us to the right path in our endeavors as Team NARCHI 2018-20.

Dr Monika Gupta

Editor's Message

From the Editors' Desk

Greetings to all!

First of all, we would like to thank the NARCHI President, Dr Achla Batra for bestowing her trust upon us, to bring out these quarterly NARCHI Bulletins.

It is with immense satisfaction that we are introducing the first issue of NARCHI Bulletin dedicated to the World Population Day which gives us the opportunity to promote our national slogan "**Ek Saarthak Kal Ki Shuruwaat Parivaar Niyojan Ke Saath**" and also to spread awareness about the need to promote the practice of family planning methods as a way of healthy living. In this issue we discuss, the unmet needs of the eligible couples that we have not been able to cover, the challenges that Delhi faces and the strategies that the State wants to implement for tackling these challenges. The issue also addresses various concerns related to family planning methods that will help the NARCHI members/ readers in providing better services to their clients.

We have tried to cover the challenges faced by the care providers while dealing with the special population groups like women in the extremities of reproductive age groups, cancer survivors who need contraceptive protection and postpartum women, the group that is highly receptive towards accepting birth control measures. Another topic that we chose for the bulletin is the use of combined oral contraceptives, which though highly effective in preventing unwanted pregnancies is not in widespread use due to unnecessary exaggerated fear of side effects.

We hope the readers will enjoy reading the articles and participate in the quiz given at the end. Our young editorial board members, Dr Megha Mittal and Dr Monu Singh have put in lots of effort to make the quiz interesting. We also take this opportunity to extend our heartfelt gratitude to all our esteemed authors, especially Dr Jyoti Sachdeva, for sharing their deep knowledge with us.

Looking forward for your valuable feedback and suggestions! Happy reading!

"Once it was necessary that the people should multiply and be fruitful if the race was to survive. But now to preserve the race it is necessary that people hold back the power of propagation."- Helen Keller

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Second Row: Dr Monu Singh (Assistant Editor), **Dr Sarita Singh** (Co-Editor), **Dr Megha Mittal** (Assistant Editor)

Challenges Faced in Providing Family Welfare Services in Delhi

Jyoti Sachdeva
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Introduction

Reproductive Health Services are the pillar of the RMNCH+A programme. Utilization of the available Family Planning (FP) services is hampered by multiple barriers including lack of awareness, hesitation in accessing services, prevailing myths and misconceptions, fear of side effects and suboptimal display or marketing of services. Providing quality services is one strategy to improve utilization.

High quality FP services ensure better utilization and thus prevent unwanted pregnancies. Correct, consistent and continued use of any method depends on quality of all elements of FP services (counselling, method provision and follow up services). Hence implementation of FP Program is a complex compendium of multiple tasks. The service providers need to be sensitized in light of survey findings, performance review, National goals and updates within the program.

Delhi Factsheet

Delhi has been able to achieve a Total Fertility Rate (TFR) of 1.6 which shows that over the last few years there has been an escalating coverage of the eligible couples. This means, apparently Delhi has been able to overcome two most important bottlenecks in Family Planning (FP) service utilization, i.e. the challenges associated with *contraceptive awareness* and *acceptance*.

However, the latest survey data does not really talk of a victorious picture.The NFHS (National Family Health Survey) IV reported a fall in the mCPR (Modern Methods of Contraceptive Prevalence Rate) to 9.2 from 56.5reported in the NFHS III. Therefore, we are required towork more intensely and adopt more varied and multipronged strategies.

As far as the unmet need of contraception is concerned, although there was a drop seen in periodic DLHS (District Level Household and facility Survey) Data, the NFHS IV data for Delhi showed a rise in the unmet need, thus apparently reversing the falling trend observed earlier.

Strategizing to Address the Challenges

It is well understood that Family Planning program implementation and the related campaigns cannot be successful without universalization of goals. In other words *multiple departments* which impact the issue of both *population stabilization* and *creating planned families*(children by choice and not by chance)have to come together and march hand in hand towards a common goal.

The non acceptability and ever poor awareness of contraceptive methods is apparently *more prevalent among men*. Hence male participation is another area which needs special focus and thrust under the RMNCH+A and particularly FP Program.

Again, if we look at the grey area of the *post partum and post abortion* contraception; this too appears to be a complex outcome of both *clients' myths***,** and *reluctance and non-prioritization from the provider's side*.

The strategic enhancement in the postpartum contraception through promotion of PPIUCD in birthing woman has given a bright outcome of goodcoverage. However, the*aborting women* are still deprived of much contraceptive coverage due to numerous demand and supply side issues. The inclination of private sector towards contraceptive provision particularly around this time of reproductive period is reported to be unacceptably low.

The high population density in*underserved areas*has *greaterchallenges* like poor education status, priorities due to socio economic conditions other than health in general and contraception particularly and many other factors are prevalent in all districts of Delhi. *Program planning* at each level should thus consider area specific challenges to ensure sustained contraceptive uptake and increase in mCPR.

A common challenge in all public Health Programs is *Behaviour change communication*. Any amount of publicity or other influencing modalities like link workers, religious and political leaders, mass media publicity, etc. fall short in penetrating the last corner of communities.

Sometimes by overhearing superfluous and callous talks about contraception, or feedback from the interactions with eligible couples at different forums leads to a state of *indifference, insensitivity, reluctance and frustration*towards the attempts to prevent unwanted pregnancy, among the potential FP clients (contraceptive seekers).

Interpersonal communication and counselling is an art inherent in few service providers of anycategory. To make this a more easily available commodity, the Directorate of Family Welfare has empowered male nursing offices, ANM's and ICTC Counsellors with this important skill. Again the challenge is ensuringthat the trained personnel delivers as per the skills taught and incorporates the habit of seeking family information along with medical history including reproductive intentions and contraceptive usage history followed by providing counselling services irrespective of whether asked directly by the clients or not.

No doubt, there are *challenges from provider's perspective* also. The public health personnel including the administrative officers are in general attuned to curative medicine rather than preventive. Family Planning(FP) Counselling and service provision requires integration with other health services which in turn requires *will to spend time, sensitization towards women's reproductive health and towards men's involvement in FP*. All these put together,we also fall short when such relatively rare breed of service providers are faced with unmanageable number of patients or clients with health priority other than FP.

Besides all these, there are *method specific challenges*. The continuation of Injectable contraceptives is hampered by menstrual changes especially if they are an unanticipated happening due to sub optimal counselling. The widely prevalent myths about NSV, particularly its perceived effect on male sexuality is one of the important reasons for poor acceptability of NSV among men.

The poorly regulated availability of medical abortion pills as well as popular use of emergency contraception also threatens seriousness of the need of regular contraception on part of young, self perceived well informed couples.

Conclusion

Delhi is robustly adopting all nationally recommended strategies, and following other good practices. The State is working hard towards steering the eligible couples to look at FP not in the narrow perspective of population issue but as a way of lifeand away to "Happy living".

For the last six years, the State is observing World Population Day and spreading related activities over two fortnights, before and after the WPD. This periodprovides us with an opportunity to further intensify the drive to reach the eligible couples and help us in moving towards our goal of population stabilization.

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If we do not voluntarily bring population growth under control in the next one or two decades, the nature will do it for us in the most brutal way, whether we like it or not. **Henry W. Kendall**

An Update on Contraception in Adolescents & perimenopausal Women

Astha Jain[1], Anjila Aneja[2], Neena Bahl[3], Mamta Patayak[4]
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Introduction

"Whether your pregnancy was meticulously planned, medically coaxed, or happened by surprise, one thing is certain– your life will never be the same- Catherine Jones"

In our country, child marriages are very common and pregnancy is considered as boon and blessing. But pregnancy in adolescent and perimenopausal age group has more complications. According to the United Nations Population Fund (UNFPA), approximately 11.8 million teenage pregnancies happen per year in India. Abortion rates in India were highest among women under the age of 20 in urban areas- 13.6% of pregnancies.[1] Girls under 15 have 5 times more chances of maternal mortality and perinatal mortality, in comparison to women in 20s.

Similarly, according to latest National Family Health Survey, most of induced abortions are in perimenopausal age group. Most of pregnancies in this age group are unwanted and associated more with complications like mental and emotional trauma, social embarrassments, abortion (legal or illegal), hypertensive disease of pregnancy, PPH, difficult deliveries, diabetes, and increased maternal mortality. ***Although, there is natural decline in fertility with age, women required contraception until 1-2 years after menopause.***

The answer to prevent such complication is contraception. Correctly chosen contraception at particular age can provide a better health benefits with fewer side-effects. Adolescents in addition also need protection from sexually transmitted diseases.

What are the potential barriers to use contraceptives in adolescents and perimenopausal women?

- Concerns about confidentiality and parental notification
- Compliance
- Medical disorder- migraine, heart disease, breast cancer, risk of thromboembolism, jaundice
- smoking
- Cost
- Misperceptions about their risk of getting pregnant and the effectiveness of, contraindications to, preinitiation evaluation for, and adverse effects of contraception like weight gain effect on height, birth defects and infertility
- Knowledge deficits among adolescents and health care providers

Removal of barriers increase use of more of contraception and decreased rates of pregnancy.[2]

What is the aim of counselling?

Aim of contraceptive counselling is to remove the potential barriers for use of contraception. To discuss reproductive life plan of the women, to educate her about contraception, discuss current and future contraceptive needs, and help her select a contraceptive modality. Women are encouraged to select one of the most effective contraceptive options, avoiding the risks of unintended pregnancy & increasing more planned pregnancies.

In adolescents, abstinence should be reinforced and they should be strongly encouraged to postpone or delay initiation of sexual activity. ***ABC strategy is used for adolescent counselling: A- Abstinence, B- Be faithful and C- Use contraception/condoms.***

How to help a woman in choosing a method?

While choosing a contraceptive method it's important to take elaborated medical, reproductive/sexual, and social history which will help in identifying absolute or relative contraindications and patient related factors (e.g., anaemia, acne, dysmenorrhea, weight gain, heart disease, history of VTE). Urogenital symptoms and sexual issues may also affect the choice of contraception.

Patient should be offered basket of contraceptive methods after proper counselling and history, and let her choose her own contraception. Sexually active adolescents are offered the contraception in order of effectiveness, starting with the most effective options.[3,4] ***Adolescents require double protection,***

effective protection against unintended pregnancy along with effective protection against sexually transmitted diseases.

Types of Contraception

Abstinence: Complete abstinence from penile-vaginal intercourse is the most effective method of birth control. But adolescents and peri-menopausal females who practice abstinence occasionally may have intercourse without using protection hence increase chances of unintended pregnancy. Therefore, for such group information regarding consequences of pregnancy, sexually transmitted disease, emergency contraception should be given.

Fertility awareness method: The periodic abstinence or the "calendar rhythm" method requires fertility period calculation in every cycle and complete abstinence during that period. It needs self-control and good level of intellect, hence, not very effective because 24% of women experiencing an unintended pregnancy within the first year of typical use as compared to 0.4-5% with perfect use.

Long-acting reversible methods: They are considered first-line options for adolescents by the AAP[3] and the ACOG.[5,6]

Intrauterine Contraception

Cu-T 380: can be used 10 years once inserted, however, the Faculty of Sexual & Reproductive Healthcare (FSRH) supports extended use of the copper intrauterine device until menopause when inserted at age 40 or over.

LNG-IUS: 52 mg LNG-IUS releases constant dose of 20 mcg levonorgesterol over a period of 5 years and A lower dose system containing 13.5 mg of levonorgesterol over a period of 3 years.

The FSRH supports extended use of a Mirena levonorgestrel intrauterine system (LNG-IUS) for contraception until the age of 55 if inserted at age 45 or over, provided it is not being used as the progestogen component of hormone replacement therapy (HRT) for endometrial protection. Women using a Mirena levonorgestrel intrauterine system (LNG-IUS) for endometrial protection as part of a HRT combination must have the device changed every 5 years. Non contraceptive benefits are in abnormal uterine bleeding, endometriosis, fibroids, anaemia, and dysmenorrhea.

There are relatively few absolute (unacceptable health risks) or relative (theoretic or proven risks usually outweigh the advantages) contraindications to intrauterine contraception.[7] These include severe distortion of the uterine cavity, active pelvic infection, known or suspected pregnancy, Wilson disease (for the copper IUD), unexplained vaginal bleeding (for initiation of intrauterine contraception), breast cancer (for the levonorgestrel-releasing IUD), and hepatocellular adenoma or hepatoma (for the levonorgestrel-releasing IUD).

Failure rate: women experiencing an unintended pregnancy within the first year of use Cu-T 0.8% with typical use and 0.6% with perfect use. and with LNG-IUS – 0.2% with typical use and 0.2 % with perfect use.

Contraceptive Implant

The contraceptive implant is a single flexible hormone controlling plastic rod placed under the skin of your upper arm. The contraceptive implant is an option for adolescents and perimenopausal age group, who desire long-term, uninterrupted contraception.[8] There is no age restriction to its use, can be continued till age of 55. Unexpected and prolonged vaginal bleeding is a common side effect and can trigger request for premature removal.

Failure rate: women experiencing an unintended pregnancy within the first year of use progesterone only etonogesterol implants 0.05 with typical use and 0.05 with perfect use.

Injectable Progestin

Depot medroxyprogesterone acetate (DMPA) is an injectable progestin-only contraceptive that provides effective, private, reversible contraception for three months. Side effects include menstrual changes (eg, unscheduled bleeding, amenorrhea increase apprehension of unwanted pregnancy) are a common side effect of DMPA and a frequent reason for discontinuation. DMPA is associated with decreased bone mineral density in both age group adolescents and perimenopausal age group. Therefore, Should not be prescribed as first choice for adolescents. Who choose DMPA are encouraged to take 1300 mg of elemental calcium and 600 to 1000 international units of vitamin D3 per day and to exercise every day. Failure rate within the first year of use are 6 % with typical use and 0.2 % with perfect use. Return to fertility may be delayed for more than a year.[7]

Combined Hormonal Contraceptives

Pill, patch, or ring, are hormonal methods of contraception that contain both oestrogen and progestin.

Combined oral contraceptive pills- require to be taken a pill daily, usually taken for 21 consecutive days followed by 7 days of no pill or placebo pills, during which menstrual bleeding occurs. If patient wishes to avoid monthly periods for medical or lifestyle reasons may choose a schedule that involves continuous oestrogen-progestin pills for 84 days followed by a week of pill-free.

According to FSRH update 2017, in perimenopausal age group, women aged 50 and over should be advised to stop taking CHC for contraception and use an alternative, safer method. Combined oral contraception (COC) with levonorgestrel or norethisterone should be considered first-line COC preparations for women over 40 due to the potentially lower VTE risk compared to formulations containing other progestogen. COC with ≤30 µg ethinyl oestradiol should be considered first-line COC preparations for women over 40 due to the potentially lower risks of VTE, cardiovascular disease and stroke compared to formulations containing higher doses of oestrogen.

Transdermal patch- The transdermal is applied weekly (at a different site abdomen/ buttock/ upper outer arm/ or upper torso, excluding breast) for three weeks, followed by a patch-free week. Transdermal patch releases 150 mcg norelgestromin and 20 mcg of ethinyl oestradiol. Nonhormonal side-effects are application site reactions. Mild itching with irritation and redness can be managed by removing and discarding the patch and placing a new patch in another location.

Vaginal ring- The vaginal ring is inserted into the vagina by the patient. It is left in place for three weeks and then removed for a week. It releases 120 mcg norelgestromin and 15 mcg of ethinyl oestradiol per day. Fertility returns within one month after discontinuation.

What are the side effects of combined oral contraceptive (COCs)?

Nausea, weight gain, headache and worsening of migraine, breast discomfort, decrease libido, lipid profile derangement, coagulation profile derangement, intermenstrual spotting, moods changes, and vaginal discharge.

Breast Cancer- Meta-analyses have found a slight increased risk of breast cancer among women using COC, but with no significant risk of breast cancer by 10 years after cessation.

Break Through bleeding- The low-dose COCs (10 to 20 mcg of ethinyl estradiol) contain similar doses of progestins as the higher oestrogen preparations. As a result, the lower-dose COCs are associated with higher rates of breakthrough bleeding (BTB), presumably due to an endometrium that gradually becomes atrophic. The bleeding is a common reason for discontinuation of this method. Regardless of the formulation used, the number of bleeding/spotting days is highest in the first three months of use and decreases thereafter.

Venous Thromboembolic Disease- Women, who use COCs, have a two to four-fold increased risk of venous thromboembolism (VTE) when compared to non-users. Although the reduction in steroid content of OCs has improved the safety and side effect profile of the pill, the increased risk of venous thrombosis has not been eliminated. The lowest VTE risk is seen with oestrogen-progestin contraceptives containing levonorgestrel, a second-generation progestin. The absolute excess risk of VTE is small, and is considered medically acceptable given the many benefits of combined hormonal contraceptives.

What are non-contraceptive benefits of COCs?

These include improved bone density and protection against ovarian cancer, endometrial cancer, salpingitis, ectopic pregnancy, benign breast disease, acne, and iron deficiency.[9]

Failure Rates of CHC

The chance of women experiencing an unintended pregnancy within the first year use of combined hormonal contraceptives is 9 % with typical use and 0.3 % with perfect use.

Absolute and Relative Contraindications of CHCs[7]

- Multiple risk factors for arterial cardiovascular disease (eg, older age, smoking, diabetes, hypertension, low HDL cholesterol, high LDL cholesterol, high triglycerides)
- Vascular disease, Hypertension, Ischemic heart disease, Migraine with aura or stroke
- Known thrombophilia and thrombogenic mutations including antiphospholipid syndrome and factor V Leiden; prothrombin mutation; protein S, protein C, and antithrombin deficiencies

- Deep vein thrombosis (DVT) and pulmonary embolism (PE) (past history of DVT/PE and not taking anticoagulant therapy or DVT/PE and taking anticoagulant therapy for ≥3 months)
- Superficial venous thrombosis (acute or history)
- Increased risk of thromboembolism (includes <21 days postpartum, whether breastfeeding or not)
- Complicated valvular heart disease,
- Breast cancer
- Diabetes with nephropathy, retinopathy, neuropathy, or other vascular disease or diabetes of >20 years' duration
- Medically treated gallbladder disease
- Acute viral hepatitis or flare of viral hepatitis (contraindication to initiation, but not continuation of combined hormonal contraception). Severe (decompensated) cirrhosis, hepatocellular adenoma, hepatoma
- History of surgery for obesity with a malabsorption procedure (eg, biliopancreatic diversion, jejunoileal bypass, Roux-en-Y bypass); this is a relative contraindication only for combined oral contraceptive pills, not for the contraceptive patch or the vaginal ring Major surgery or multiple sclerosis with prolonged immobilization
- Drug interactions such as certain antiretroviral therapies, anticonvulsant medications, rifampicin

Barrier Methods

Male condoms, female condoms and Diaphragms- The effectiveness of condoms for pregnancy prevention depends upon whether they are used consistently and correctly. For male condom with consistent, perfect use, the pregnancy rate is 2%; with typical use it is 18%. For female condom, with consistent, perfect use, the pregnancy rate is 5% & with typical use it is 21%. Side effect include allergy to latex, accidental rupture (accidental pregnancy), need motivation for each act of intercourse. Non contraceptive benefit of condoms is prevention of sexually transmitted disease.

Withdrawal method- requires awareness, self-control and is less effective. The pregnancy rate associated with perfect use is 4 percent; with typical use it is 22 percent. Side effects are vaginismus, accidental ejaculation and accidental pregnancy due to presence of sperm in pre-ejaculatory secretions.

Emergency Contraception

Emergency contraception, also known as postcoital contraception refers to the use of drugs or a device as an emergency measure to prevent pregnancy. All sexually active women should be counselled regarding emergency contraception to be used in case of condom rupture, missed pills and unprotected intercourse. (Table 1)

Table 1: Schedule for available Emergency Contraceptives

Type of contraception	Dose	Till when to be used
Levonorgestrel	150 mg stat, single dose	Within 72 hours of intercourse
Ethinyl estradiol plus levonorgestrel (Yuzpe regimen)	Ethinyl estradiol 100mcg+ levonorgesterol 0.75 mg	Within 72 hours of intercourse
Cu T	Intrauterine insertion	To be inserted within 5 days of intercourse
Mifepristone† (anti progesterone)	10 mg,single dose	Within 72 hours of intercourse
Ullipristal selective progesterone receptor modulator	30 mg, single dose	120 hours after intercourse

†not approved for use in India

Conclusion

In adolescents sexual abstinence is encouraged, otherwise use of condoms with one of the effective contraceptive method (dual method) is most appropriate regimen.

For perimenopausal women, medical conditions & risk factors for cardiovascular diseases, venous thromboembolism, bone fractures and cancers should be considered at the time of counselling. Women who achieve menopause before 50 years of age, contraception should be continued for 2 years and for those who achieve menopause after 50 years, contraception can be stopped after 1 year of amenorrhea.

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Quiz Time

1. **Which one is the best method of contraception in women with breast cancer**
   i) CuT 380 A
   ii) COCs
   iii) DMPA
   iv) Nova Ring

2. **The total fertility rate of Delhi is**
   i) 1.2
   ii) 1.4
   iii) 1.6
   iv) 1.8

3. **What is the amount of ethinyl oestradiol released in a day from the nova ring**
   i) 10 mcg
   ii) 15 mcg of EE
   iii) 20 mcg
   iv) 30 mcg

4. **The lowest risk of VTE is seen with which generation of progestin**
   i) Second generation
   ii) Third generation
   iii) Drospirenone
   iv) None of the above

5. **According to NFHS survey 2016 usage of contraception in India is**
   i) 45.2%
   ii) 53.5%
   iii) 65.3%
   iv) 68.2%

6. **Centrochoman is available in Government supply as**
   i) Saheli
   ii) Chayya
   iii) Antara
   iv) Sevista

7. **In how many days the beneficiary should file claim in the event of complication/failure/death, under Family Indemnity Scheme, with in**
   i) 30 days
   ii) 60 days
   iii) 90 days
   iv) Any time after the event

8. **Which of the following is false regarding POP**
   i) Contains third generation progestin
   ii) It has five days of pill free interval
   iii) It acts by thickening of cervical mucus and suppressing ovulation
   iv) It can be started at 6 weeks after delivery in fully breastfeeding women

9. **Which of following contraceptive device can't be used in the immediate postpartum period**
   i) Condoms
   ii) Vaginal diaphragms
   iii) Cu IUCD
   iv) LNG-IUS

10. **Government Of India new strategy of RMNCH +A encompasses all of the following except**
    i) Maternal and child health
    ii) Geriatric health
    iii) Adolescent health
    iv) Family planning

The answers of the quiz can be posted at narchidelhisjh@gmail.com. The correct answers with the names of candidates with first three correct entries will be published in the next issue of the bulletin. The candidates will also be honoured in the next event held by NARCHI Delhi Chapter; prior information will be sent by email.

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Directorate of Family Welfare, Govt. of NCT of Delhi Celebrates World Population Day and Associated Fortnights

Parivar Vikas Mela on 11th July, 2018 at MCW Janakpuri

Contraceptive Corner


Guests for Parviar Vikas Mela


Counsellling Desk for Maternal Health and Adolscent

Saas Bahu Sammelan & Saarti Rath - Delhi Style & Other Special Initiatives


Address by State Programme Officer (FP), Dr Jyoti Sachdeva

Prize distribution to Best Jodi (Saas Bahu) by Dr Jyoti Sachdeva, SPO FP


Role Play by Staff Nurses of SVBPH

SVBPH Poster & Slogan competition on 11th July, 2018


Poster making by Staff posted in different department


Slogan making by Staff posted in different department


Poster are judged by Dr Babita (DMS, SVBPH) Dr Anita Rajoria (HOD Obs & Gynae) and Dr Urika Tyagi (MO, FP)

SKV Janakpuri Poster Competition on 11th July, 2018


Address by Dr Manoj Kumar Gupta, RCH Nodal Officer


Poster making by Students of SKV school


Prize distribution in Poster Competition by School Principal and RCH Nodal Officer, West District

Events organized under aegis of NARCHI Delhi Chapter from 1st April to 24th July, 2018

1. Safe Motherhood Day- An awareness campaign was conducted in PGIMER and Dr RML Hospital, New Delhi on 11th April, 2018.
2. A Health Check-up and Awareness Camp was organised at Old MCD office, Rajouri Garden.
3. First Meeting of Executive Members and Outreach Team of NARCHI Delhi 2018-20 was held on 24th April, 2018 at Safdarjung Hospital.
4. On 24th April, 2018 Inaugural CME of NARCHI Delhi Branch on "Revisiting Labour" was conducted at VMMC & Safdarjung Hospital.
5. A Surgical Venture was organized by Okti Foundation and Sant Parmanand Hospital, Delhi at Civil Hospital, Joginder Nagar, Mandi, Himachal Pradesh from 27thApril to 29thApril, 2018.
6. An interactive CME was organised by FOGSd in association with Rainbow Hospital on 11th May, 2018. The CME was followed by 'Mother's Day celebration'.
7. A Health Check-up and Awareness Camp was organised at Maharaja Agarsen Polyclinic, Uttam Nagar on 16th May, 2018.
8. A CME on "Diabetes in Pregnancy" was organised by Elite Club West at Rajouri Garden on 7th June, 2018.
9. Public Awareness Programme on Menstrual Health was held on 13th June, 2018.
10. A CME on 'Management of Adnexal Masses' was organised on 13th June, 2018 at Venkateshwar Hospital in association with Gynae Forum, Janakpuri.
11. Public Awareness Programme and Swachh Bharat Abhiyan was held on 18th June, 2018 at GP Slum Area Pitam Pura.
12. A Health Check-up and Awareness Camp was organised at Maternal and Child health Centre, Binda Pur on 23rd June, 2018.
13. A cervical cancer awareness programme for nursing students was conducted by Dr Shivani Agarwal on 25th June, 2018.
14. A CME on "Endometriosis in Infertility" was conducted by Milan Infertility Centre.
15. A CME on "Recurrent Pregnancy loss" was organised by Elite Club West at Rajouri Garden on 29th June, 2018.
16. An Infertility Check-up Camp was organised by International Fertility Centre at Shankhwar Hospital Kondli.
17. A CME on "Critical Care in Obstetrics" was conducted at Max Hospitals East zone, on 4th July, 2018.
18. DGF South organised a CME on 26th June 2018 at ISKCON Temple, East of Kailash on Role of Calcium and Vitamin D3 in Pregnancy and Lactation.
19. DGF South under Leadership of Dr Anita Sabharwal organised an Awareness Program on Cervical Cancer, for the Police Personnel (south district).
20. DGF Central organised CME on 19th July, 2018 in Hotel Siddharth.
21. **Events organised under 'World Population Day' and 'Population Control Fortnight' Celebration**- Poster and Slogan Competition, Quiz, "Saas Bahu Sammelan" "Nukkad-Natak" & "Jodi Quiz" by Sardar Vallabh Bhai Patel Hospital; Quiz cum Poster Competition, Nukkad Natak (public forum), & CME on "Revisiting Contraception" by Department of Obstetrics & Gynaecology, VMMC & Safdarjung Hospital and NARCHI Delhi branch.

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Events held under

First Meeting of Executive Members and Outreach Team

Safe Motherhood Day, General Awareness Programme, PGIMER Auditorium, Dr RML Hospital, New Delhi


Health Camp at Municipal Council Polyclinic, Rajouri Garden


Inaugural CME of NARCHI Delhi Branch on "Revisiting Labour"


Surgical Venture organised by Okti Foundation and Sant Parmanand Hospital


"Mother's Day Celebration' & CME & organised by FOGSd with Rainbow Hospital

Health Check-up and Awareness Camp at Maharaja Agarsen Polyclinic, Uttam Nagar


CME on "Diabetes in Pregnancy" organised by Elite Club West Rajouri Garden


Public Awareness Programme on Menstrual Health at Sardar Vallabh Bhai Patel Hospital


Cervical Cancer Awareness Programme for Nursing Students organised by Dr Shivani


CME on 'Management of Adnexal Masses' at Venkateshwar Hospital with Gynae Forum, Janak Puri


CME on "Recurrent Pregnancy Loss" organised by Elite Club West, Rajouri Garden

Infertility Check-up camp by International Fertility Centre at Shankhwar Hospital Kondli


CME on "Critical Care in Obstetrics" organised by Max Hospitals East Zone


CME organised by South Delhi Gynae Forum at ISKCON Temple, East of Kailash

r aegis of NARCHI

DGFS organised Cervical Cancer Awareness Program for Police Personnel

"Breast Self Examination" CME at Kasturba Hospital

CME organised by DGF Central at Hotel Siddharth

Events organized under aegis of NARCHI Delhi Chapter, on World Population Day Fortnight for spreading awareness regarding need for contraception

On the occasion of World Population day, Sardar Vallabh Bhai Patel Hospital organised Poster & Slogan Competition for Doctors, Patients & Nursing Staff, Quiz for Patients and Their Attendants, "Saas Bahu Sammelan" "Nukkad-Natak" and "Jodi Quiz"

World Population Day Celebration on 11th July, 2018, at VMMC & Safdarjung Hospital, Department of Family Planning, organised a Quiz Cum Poster Competition

'Population Control Fortnight' Celebration, a Nukkad Natak (public forum) performed in Gynaecology OPD, VMMC & Safdarjung Hospital, to spread Public Awareness on Population Control

'Population Control Fortnight' Celebration, CME on "Revisiting Contraception" organised by Department of Obstetrics & Gynaecology, VMMC & Safdarjung hospital and NARCHI Delhi Branch on 24th July, 2018

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Postpartum Contraception: An overview

Sarita Singh[1], Monu Singh[2]
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Introduction

The postpartum period is a transition time for a pregnant woman and her new family. In this period many pregnant women are in search about the family planning methods. This situation is an opportunity for clinicians, doctors, nurses and midwives to promote modern methods. According to NFHS SURVEY 2016 current use of contraception in married women in India is 53.5%. Total unmet need of family planning among married women is 12.9% and the unmet need for spacing between pregnancies after first pregnancy is 5.7%.

Under the National Health Mission, Ministry of Health and Family Planning has launched a mass media birth spacing campaign for the postpartum contraception, ***"Be prepared"*** and the Key message in this campaign *is "Plan in advance and decide on post-partum contraception, to maintain a gap of 3 years between children. This will ensure that the mother and child, both are healthy"*.

Need for Contraception in Immediate Postpartum Period

In postpartum women who do not breastfeed, ovulation returns at a mean of 39 days postpartum (earliest ovulation reported 25 days after delivery). [1] As many as 60 percent of these ovulations are potentially fertile.[1] Since the first ovulation often occurs before the first menses, we educate the women that return of menses cannot be used as a reliable marker for when to initiate contraception. For breastfeeding women, the resumption of ovulation appears to be influenced by the frequency and duration of breastfeeding, in women who practice exclusive breastfeeding, ovulation returns by 3rd month.[1] Prompt initiation of postpartum contraception increases utilization and continuation and thus reduces the risk of unintended pregnancy.

Contraceptive Options for Postpartum Women

Long acting reversible contraceptives (LARC)

LARC is a highly effective means to prevent unintended pregnancies and subsequent negative outcomes.[2] LARC includes non-hormonal copper intrauterine devices (IUDs) as well as hormonal methods: levonorgestrel-releasing IUDs (LNG-IUDs), single-rod etonogestrel (ETG) implants.[3] Also, in India there is a new add on to the group of injectable preparation, Depot Medroxy Progesterone Acetate (DMPA) popularly known as *'antara".*

The major advantage of LARC compared with other reversible contraceptive methods is that they do not require ongoing effort on the part of the patient and are very effective. In addition, after the device is removed, the return of fertility is rapid.[4]

Copper Intrauterine devices (IUD)

The copper T 380A IUD is a T-shaped device of polyethylene wrapped with copper wire around the stem and arms. Studies indicate that the copper IUD exerts its contraceptive effects primarily by preventing fertilization through inhibition of sperm migration and viability.

Levonorgestrel releasing intrauterine system (LNG-IUS)

LNG-IUDs contain a total of 52 mg of levonorgestrel: it releases 20 micrograms/day hormone. LNG-IUDs have a similar primary mechanism of action, they prevent fertilization by causing a profound change in the amount and viscosity of cervical mucus, making it impenetrable to sperm.[5]

Injectable progesterone- DMPA

It is available free of cost in Medical Colleges and District Hospitals at present, was launched on 5-September-2017 in 10 states that includes Maharashtra, Uttar Pradesh, Madhya Pradesh, Rajasthan, Karnataka, Haryana, West Bengal, Odisha, Delhi and Goa.

Depot Medroxyprogesterone Acetate (Antara), 1 cc crystalline suspension of 150 mg is injected intramuscularly (IM) every three months, (figure 1). When administered at the recommended dose to women every 3 months, DMPA works as a contraceptive by inhibiting the secretion of gonadotropins which, in turn, prevents follicular maturation and ovulation and results in endometrial thinning.[6] Women who

use Depo-Provera contraceptive injection may lose significant bone mineral density. Bone loss is greater with increasing duration of use (>2yrs) and may not be completely reversible.[7]

Figure 1:

Etonorgestrol implants

The contraceptive implant is placed subdermally and consists of an ethylene vinyl acetate copolymer core that contains 68 mg of etonogestrel surrounded by an ethylene vinyl acetate copolymer skin. The ethylene vinyl acetate copolymer allows for controlled release of etonogestrel over 3 years.it is radio-opaque and visualised on x ray. The primary mechanism of action of the implant is suppression of ovulation.[2] Additional contraceptive efficacy may be conferred by the implant's thickening of cervical mucus and alteration of the endometrial lining.[2,3]

When can a woman start using LARC after delivery?

Immediate postpartum *IUD insertion* (i.e., within 10 minutes after placental delivery in vaginal and caesarean births), should be offered routinely as a safe and effective option for postpartum contraception. Women should be counselled about the increased expulsion risk, as well as signs and symptoms of expulsion.[7] IUCD can be inserted within 48 hrs of child birth. After which it should be offered after 6 wks.

According to Government of India guidelines, in breast feeding women, *Inj DMPA (Antara)* should be given only 6 weeks after the delivery. WHO also kept it in MEC category 3 till 6 weeks after delivery. This is due to the theoretical concern about the potential exposure of the neonate to DMPA during the first 6 weeks postpartum. Animal data suggest an effect of progesterone on the developing brain; whether similar effect occur following progestogen exposure in humans is unclear.

Immediate postpartum initiation of the contraceptive *implant* (i.e., insertion before hospital discharge after a hospital stay for birth) can be offered routinely as a safe and effective option for postpartum contraception, regardless of breastfeeding status. *However, implants at present are not available in India.*

What is the effect of LARC on lactation?

Copper IUD has no effect on lactation. However, with hormonal LARC, i.e. LNG-IUDs, ETG implants and injectable progestins, there are certain theoretical concerns with their immediate postpartum use. They can impede lactation by preventing fall in the progesterone levels after delivery and higher levels of progesterone could reduce breast milk production. Direct evidence from literature demonstrates no harmful effect of POCs on breastfeeding performance and generally demonstrates no harmful effects on infant growth, health or development; however, these studies have been inadequately designed to determine whether a risk of long-term effects exists. Breastfeeding women who are < 6 weeks postpartum can generally use LNG-IUS and implants (WHO MEC Category 2).[8]

Short acting hormonal contraceptives

Short acting hormonal contraceptives comprises of progesterone only pills (POP) and centchroman popularly known as '*chhaya*' in India.

Progesterone only pills

Unlike combination birth control pills, the POP or minipill doesn't contain oestrogen, it contains desogesterol 75 microgram. The progestin dose in a minipill is lower than the in a combination oral contraceptive pill hence the name minipill. POPs come in packs of 28 pills and there is no pill free interval.

The minipill thickens cervical mucus and thins the lining of the uterus (endometrium) preventing sperm from reaching the egg. The minipill also sometimes suppresses ovulation. For maximum effectiveness, pill must be taken at the same time every day. POPs are safe for use by breast-feeding mothers. If women is fully breastfeeding (not giving the baby any food or formula), the mother should start taking this medication 6 weeks after delivery and partially breast-feeding mothers should start the pill by 3 weeks after delivery. It is WHO category 2 for breast feeding women <6 weeks postpartum. *However, the pill is not available in government supply.*

Can Progesterone only Contraceptives Prescribed to Women with Venous Thromboembolism?

Progesterone only contraceptives (ie, etonogestrel

implant, LNG-IUS, Injection DMPA, and progesterone only pills) can be prescribed to postpartum women with a history of venous thromboembolism(VTE), VTE on anticoagulant therapy or with known thrombogenic Mutations, WHO MEC category 2.[8,9]

Non Hormonal Contraception- Chhaya

Chhaya is a non-hormonal, non-steroidal, once a week contraceptive pill, (figure 2). Chhaya is one of the 2 newer contraceptives made free of cost available by Government of India, in Medical Colleges and District Hospitals of 10 states at present. It works by preventing implantation of fertilized egg in the uterus. Schedule of is, one pill is to be taken twice a week for the first 3 months, following which from the 4th month only once a week administration is required.[10]

Figure 2:

Chhaya is an effective reversible method of contraception. *It is safe for breastfeeding women, even immediately after childbirth.* It has no effect on the quantity and quality of breast milk. Also return to fertility on stopping the pill is prompt.[7]

Barrier method

When used correctly and consistently, condoms offer one of the most effective methods of protection against STIs, including HIV. Female condoms are effective and safe, but are not widely available under national programme. It is WHO MEC category 1 in the post partum period or during breast feeding. It has the benefit of not affecting the lactation and providing protection against STDs. Only barrier contraceptives like cervical caps and vaginal diaphragms are not used in the post partum period until uterine involution is complete.[11]

Sterilisation

Tubectomy / vasectomy for the couples who wish to use permanent method of contraception. For permanent methods special care must be taken to assure that every client makes a voluntary, informed choice of the method. There are no contraindications to vasectomy due to postpartum status of the women. However, for Tubectomy, the procedure can safely be done within 7 days of delivery or after 6 weeks, WHO category A. The procedure should be delayed in women with severe pre-eclampsia/eclampsia, prolonged rupture of membranes, 24 hours or more, puerperal sepsis, intrapartum or puerperal fever, severe antepartum or postpartum haemorrhage and severe trauma to the genital tract (cervical or vaginal tear at time of delivery), WHO category D. In case of uterine rupture, if the patient is stable, repair of the rupture and tubal sterilization may be performed concurrently if no additional risk is involved.[8]

Conclusion

This wide range of options available in the postpartum period increases the confidence of the mothers and encourages them to choose from the wide basket of choices, a contraceptive that is best suited for their needs. The Ministry of Health and Family Welfare, through its sustained family planning efforts, aims to achieve its goal of increasing modern contraceptive usage and ensure that 74% of the demand for modern contraceptives is satisfied by 2020, with continued emphasis on delivering assured services, generating demand and bridging supply gaps.

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"Somewhere on this globe, every 10 seconds, there is a woman giving birth to a child. She must be found and stopped"- **Sam Levenson**

Contraception for Cancer Survivors

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Introduction

A cancer survivor is any person with cancer, starting from the moment of diagnosis. According to National cancer registry program of Indian Council of Medical Research (ICMR), >1300 Indians die every day due to cancer. In 2014, 491,598 people died out of 2,820,179 cases.[1] According to current estimate there are about 11.4 million cancer survivors in the US and the number is likely to grow.[2]

It is estimated that 80% of women diagnosed with cancer before the age of 50 years will survive for at least 15 years.[3] Breast cancer is the most common cause of cancer in women. Out of this about half are in women between ages 15- 65 years. Of late, the incidence of malignancy is rising in younger women, who need contraception advice.

Contraception Usage in cancer Survivors

There is limited awareness regarding the need for contraception and the available choice of contraceptive methods, among cancer survivors. Therefore, the pregnancy termination rates in these women are reported to be high. In US, cancer survivors of 15-30 years are more likely to terminate the pregnancy than the age matched controls.[4] A recent Danish study also found that cancer survivors are more likely to terminate their pregnancy.[5]

On comparison of current contraception use in survivors with that of the general population it was found that the cancer survivors are less likely to use contraceptive methods, 38% vs 53%. Also, only 56% of survivors reported receiving family planning services (counselling, prescription or procedure related to birth control) since cancer diagnosis.[6]

Why Cancer Survivors Need Contraception?

These women need contraception during the period of Chemotherapy/Radiotherapy to avoid teratogenicity. In addition, the breast cancer survivors are advised to avoid pregnancy for 3 years subsequent to cancer treatment as pregnancy hormones may aggravate the risk of recurrence.

Cancer can also occur in children and adolescents, with leukaemia being the most common. With advances in cancer diagnosis and treatment, young women are more likely to survive the cancer. These young women may like to defer their pregnancy at the time of diagnosis and treatment either temporarily or permanently. Currently there are limited guidelines to meet the contraception needs of such women.

What are the Contraceptive Choices for Cancer Survivors?

There are various factors on which the decision to give contraceptive advice depends-

Fertility status of cancer survivors: Although, the fertility of women after cancer treatment is likely to be less. The usual signs of ovulation like resumption of menstruation may not be reliable in the women who have undergone cancer treatment. For those who wish to conceive, one may have to do the following tests to find out the fertility status- FSH, inhibin A and B, AMH level, TVS for antral follicle count and ovarian volume. Out of this AMH appears to be a useful indicator.

Type of cancer: Certain cancers like breast cancer which may be oestrogen or progesterone receptor positive, the hormonal contraceptives are not advised as it may increase the recurrence rate. Animal studies have indicated that progestins induce growth and metastasis of breast cancer.[7] So, progestin only preparations are also not advisable. For these reasons CuT 380A is the best choice of contraception for such women.

Regarding levonorgestrel intrauterine system (LNGIUS), it appears to be good choice as it prevents endometrial hyperplasia especially when the women are put on Tamoxifen. Many studies have supported its use but one study has shown high incidence of recurrence if women continued using LNG IUS (adjusted hazard ratio, 3.4; 95% CI, 1.01-11.35).[8] However, more research is needed on the long term use of LNG IUS in breast cancer survivors.

Risk of Venous thromboembolism: It is a well-known fact that there is high risk of venous thromboembolism (VTE) with the use of combined oral pills. Lung, lymphatic, gynaecologic, and genitourinary cancers

pose a high risk of VTE. Gastric and pancreatic cancers also have a very high incidence of VTE (>3 times) the average population.[9] So, it is mandatory to analyse all the risk factors of VTE in cancer survivors before considering hormonal contraception.

Anaemia: CuT 380A may lead to heavy menstrual bleeding (HMB) and implants induce irregular bleeding so these may not be advisable in cancers which induce anaemia e.g. lung cancer. LNG IUS is a better choice for such women.

Osteoporosis: DMPA and implants decrease bone mineral density in women with prolonged use. Those women who are already osteopenic or in whom cancer or its therapy produce this effect, COC or LNG IUS are better choice.

Risk of development of cancer: Endometrial and ovarian cancers risk is decreased with the use of COCs, so these can be used in women who are BRCA 1 and 2 carriers. High dose COCs does increase the risk of breast cancer but now with the modern low dose preparations this risk is minimal and COCs can be used safely. In general population LNG IUS has not been shown to increase the risk of breast cancer but its effect on risk of developing ovarian cancer is not well studied till now.

Contraception during chemotherapy: It remains unclear whether the use of OCP during Chemotherapy (CT) has any protective effect on ovarian function. Chapman & Sutcliff reported that 5 out of 6 patients treated with combination CT and the OCP for the Hodgkin's disease had normal menses and normal serum gonadotropins at the completion of study, whereas Whitehead et al found that 7 out of 9 women who received OCP with combination CT for Hodgkin disease had oligomenorrhea.[10,11] In a recent paper by Weinberg et al, 14 women with Malignant Ovarian Germ Cell Tumour underwent fertility sparing surgery followed by adjuvant CT.[12] All were on OCP's during CT and 1 case of menarche occurring 8 months after completing CT. The results indicate that the hormonal suppression with OCP's may have been protective of ovarian function.

Teratogenicity: The risk of congenital malformation in the offspring of women treated with CT has also been a concern. The risk is highest if CT is administrated during 1st Trimester of pregnancy especially when antimetabolic (e.g. methotrexate) and alkylating agents are used.

Emergency Contraception

It can be used in any type of malignancy because of its short term use. However, repeated use should be avoided in women with oestrogen or progesterone receptor positive cases. Cu T 380 A is safe in such women.

Other Contraceptive Options

Out of the various options available for contraception, Behavioural, Barrier and Surgical sterilization can be used by any cancer surviving women. First, there is high risk of failure rate with typical use of barrier methods and behavioural methods cannot be used in women where menstrual cycle is not predictable due to the cancer or its treatment. Tubectomy is not a choice in for every woman.

Recommendations for Contraception in Cancer Survivors

In 2012, the society of Family Planning (SFP) published clinical guidelines for contraception in women with cancer. While the subsequent 2015 WHO Medical Eligible Criteria approved hormonal contraception for most non hormone dependent cancers, the SFP guidelines give important additional considerations.[13] The following recommendations are based on good and consistent scientific evidence: (Level A)

- Combined hormonal contraceptive methods should be avoided by women with active cancer or who have been treated for cancer in last 6 months due to increased risk of VTE.
- For women with history of breast cancer, the copper 380A IUD, a highly effective, hormone free method, is recommended.
- For women with anaemia, the levonorgestrel containing IUS may be used to minimize menstrual blood loss.

The following recommendations are based on limited or inconsistent scientific evidence (Level B)

- For women with breast cancer treated with tamoxifen, the levonorgestrel- containing IUS provides highly effective contraception and reduces tamoxifen induced endometrial changes without increasing the risk of breast cancer recurrence.
- For women with history of chest wall irradiation, systemic oestrogen and progestin should be avoided.
- Women with osteopenia or osteoporosis should avoid injectable progestin only contraceptives.
- Oestrogen containing contraception may be

beneficial to women with osteopenia and osteoporosis.

- Women with immunosuppression may safely use intrauterine contraception.
- Emergency contraceptive pills may be used by women at risk of breast cancer or breast cancer recurrence who decline emergency placement of a copper T380A IUD.

Conclusion

Contraception is an important issue to discuss with cancer survivors. An appropriate choice should be made depending on the type of tumour, fertility status, phase of treatment and various contraceptive methods available and comprehensive counselling of cancer survivors.

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Thoughtful education programs and access to effective forms of contraception are key to preventing unplanned pregnancy. **Kristen Soltis Anderson**

Critical Analysis of Risks associated with Combined Oral Contraceptives

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Introduction

Combined Oral Contraceptives (COCs) are the most prevalent form of reversible contraception in many parts of the world. However, in India, their use is relatively very low, amounting to 4% of all contraceptive methods used by eligible couples. This is despite the fact that COCs are safe and effective option for many women wanting to either space their pregnancies or restrict family size. Along with offering continuous protection against pregnancy, COCs have many non-contraceptive advantages like regularization of menstrual cycle, reduction in the menstrual blood loss thereby increasing haemoglobin, protection against ovarian and endometrial cancer, and ectopic pregnancies.

In India, the use of COCs is more popular for treatment of a variety of disorders like hyperandrogenism, dysmenorrhea, and abnormal uterine bleeding than for contraception. The low rate of COCs usage for contraception is both due to client related anxiety and concern of the service provider about the associated toxicity (such as thromboembolic events, cardiovascular disease and risk of cancers). However, the introduction of pills with low dose of both oestrogen and progestin in 1960 led to a reduction in both the side effects and the cardiovascular complications. Also, due to the improved safety profile of COCs the upper limit of age for non-smoking women has been removed and in healthy non-smokers, these pills can be prescribed until menopause. This article attempts to analyse the available data on the safety profile of COCs.

Contraindications to COCs

Based upon the medical eligibility criteria, following medical conditions pose an unacceptable health risk to the family planning clients and thus are contraindications to the COCs usage.[1]

- Cardiovascular risk factors- Any hypertension (controlled/uncontrolled with systolic ≥140 mmHg or diastolic ≥90 mmHg), falls in category 3/4 of WHO MEC criteria for COCs. Even history of hypertension in the past (e.g HT in pregnancy) where current BP cannot be evaluated falls in Category 3 and COCs are not considered safe in this group. Known ischemic heart disease, history of stroke, complicated valvular heart disease (pulmonary hypertension, risk for atrial fibrillation, history of subacute bacterial endocarditis), or multiple risk factors for arterial cardiovascular disease (such as older age, smoking, diabetes, and hypertension) are other contraindications for initiating COCs
- Venous thromboembolism (VTE) or known thrombogenic mutations
- Age ≥35 years and smoking ≥15 cigarettes per day
- Breast cancer, cirrhosis or hepatocellular adenoma or malignant hepatoma

What does the evidence say?

Cardiovascular complications

The available evidence suggests that the risk of cardiovascular complications is very low in non-smokers and women taking COCs with ≤50 mcg ethinyl estradiol. Roach et al in a meta-analysis of studies on MI and ischemic stroke in COC users concluded that women using COCs are at a small increased risk of arterial complications, MI and stroke combined.[2] They didn't find any association with the type of progestin used, but reported highest risk in women taking pills containing ≥50 mcg of ethinyl estradiol, a dose that is rarely used these days. On the risk of venous thrombosis in COC users, they observed that the COC pills containing levonorgestrel and 30µg of oestrogen are the safest oral form of hormonal contraception.

Hypertension- COCs may cause a mild elevation in blood pressure within the normal range; however, overt hypertension is unusual with low-dose COCs.

Stroke- In otherwise healthy young women (nonsmokers without hypertension), the risk of stroke is extremely low because the baseline risk very low in this population.[3,4] The type of progestin used in the COCs, does not alter risk of stroke. If a woman on a COC has a stroke, the pill should be discontinued and not resumed.

Older age, obesity, smoking, migraine headaches with aura, hypertension, dyslipidemia, and prothrombotic mutations are other factors that increase the risk of stroke in the women taking COCs.[5] The increased risk of stroke in women with prothrombotic mutations raises an issue of *"whether women should be screened for thrombophilia before starting hormonal contraception"*. WHO does not recommend routine screening for thrombogenic mutations. However, the women who either have a first-degree relative with history of VTE associated with inherited thrombophilia; or multiple first-degree relatives with history of VTE, particularly at a younger age of <50 years, should be screened for inherited thrombophilia before initiating COCs.[6]

Venous thromboembolism

The risk of VTE in COC users is two- to fourfold higher than in nonusers.[7] However, the absolute risk is low and far less than the risk of VTE associated with pregnancy and the early postpartum period, which are estimated to be 20 to 30 and 40 to 65 per 10,000 woman-years, respectively.[8] Important observations about COC use and VTE risk is that risk is less with EE dose of <50mcg and lowest with COCs that contain a second-generation progestin such as levonorgestrel.[7] The risk of VTE is highest in the first year of COC use. It subsequently decreases, but persists until the COC is stopped.

Cancer Risk

It appears that the pill use is *not* associated with an overall increased risk of cancer.

Breast cancer- Data on breast cancer risk with COC use have been variable, with some epidemiologic studies reporting no association and others observing an increase in risk with current, but not past, use. Among those showing an increase, the absolute risk of developing breast cancer is very low. The Royal College of General Practitioners' (RCGP) cohort study, which followed 50,000 women for 44 years, found that an increased risk of breast and cervical cancer observed in current and recent pill users, disappeared within five years of stopping the pills. Also, this increased cancer risks in past pill users is counterbalanced by the reduction in colorectal, endometrial, and ovarian cancer risks that persisted at least 30 years. Majority of the epidemiologic studies have not demonstrated an association between COC use and the risk of breast cancer later in life.[9]

Data on breast cancer risk in COC users with a family history of breast cancer are limited with one study showing no association with family history of breast cancer and other showing an increased risk. However, the elevated risk was primarily in women using high-dose estrogen pills prior to 1975. Data on the impact of BRCA status are also limited. In one report, the associations between ever use of COCs and ovarian and breast cancer among women who were *BRCA1* or *BRCA2* mutation carriers were similar to those reported for the general population.[10]

Cervical cancer- COC use has been reported to be associated with an increased risk of cervical cancer, particularly in women who are human papillomavirus (HPV) positive. The absolute increase for invasive and in-situ cancer risk is very low; the study authors estimate that 10 years of use between ages 20 and 30 years would increase the cumulative incidence of cervical cancer from 7.3 to 8.3 per 1000 and 3.8 to 4.5 per 1000 in less developed and more developed countries, respectively. However, it is not clear whether the relationship between COC use and cervical cancer is a causal one because their use is also associated with exposure to HPV, the known cause of cervical cancer.[11]

Ovarian and Endometrial cancer- Ever use of COCs is associated with a reduced risk of ovarian and endometrial cancer and, the protective effect persist for 30 years after cessation of COCs.

Melanoma- There had been concerns that COCs was associated with an increased risk of melanoma, but evidence suggests that this is not the case. In a meta-analysis of over 5500 melanoma cases in women, there was no significant melanoma risk associated with COC use compared with nonusers.[12]

Fertility

COC use has not been associated with infertility. In a study described above of 187 women using the continuous pill for one year, the median time to return to menses after stopping the pill was 32 days, and spontaneous menses or pregnancy occurred at day ≤90 in 185 of 187 women (98.9 percent).[13] Thus, women who do not menstruate three months after discontinuing a COC should undergo the same evaluation for amenorrhea as any woman with amenorrhea.

Uterine fibroids

Use of low-dose COCs does not cause fibroids to grow; therefore, administration of these drugs is not contraindicated in women with fibroids

Carbohydrate and lipid metabolism

Women taking low-dose COCs have normal glucose tolerance and are not at increased risk of developing type 2 diabetes. For women with known type 2 diabetes, the selection of a contraceptive method should be based on the same guidelines that apply to women without diabetes.

In general, COCs increase serum triglyceride concentrations slightly. The effects on low-density lipoprotein (LDL) and high-density lipoprotein (HDL) are less predictable, but the effects are related to the dose of the ethinyl estradiol, the type of progestin, and health status of the patient (eg, obese versus normal weight). Androgenic progestins, such as levonorgestrel, are associated with slight decreases in HDL and increases in LDL. The third-generation progestins are less androgenic and have more favourable effects on lipids.

Liver disorders

A number of liver disorders have been thought to be associated with COC use. Evidence for an association with hepatic adenoma is good, risk correlates with dose and duration of use. Most of the available incidence data are based upon early COC preparations with high oestrogen and progestin content; the incidence is thought to be decreasing with lower-dose COC preparations, but data are limited. The evidence for an association with focal nodular hyperplasia (FNH) and hepatocellular carcinoma (HCC) is inconclusive.[14] Oestrogen-progestin contraceptives containing ≤35 mcg of ethinyl estradiol have not been shown to have an adverse effect on liver function tests; this includes pills containing early-generation progestins, third-generation progestins, and drospirenone.[15]

Migraine headaches

Headaches are common in women of reproductive age; most women have migraines without aura that are oestrogen associated. There is evidence that higher-dose COCs are associated with an increased risk of ischemic stroke in women with migraine with aura (although the absolute risk is small). The World Health Organization (WHO) suggest against the use of COCs in women with migraine with aura and in women over age 35 with any type of migraine.[1] However, many authors believe that recommendations to avoid COCs in all women with migraine with aura should be reassessed in light of newer data from studies evaluating today's low-dose COC formulations.

Overall Mortality

COC use in women over age 35 years who smoke is associated with an increased risk of death from cardiovascular events. However, overall mortality rates are not increased and may actually be decreased among ever users of COCs compared with never users. The women in the studies that showed increased overall mortality had taken COCs containing higher doses of estrogen than are typically used today (≥50 mcg versus 20 to 35 mcg ethinyl estradiol). These data should reassure young, nonsmoking women that current use of COCs is not associated with an increased long-term risk of death and may actually provide a small benefit.

Conclusion

Concern about the risks associated with COCs initially limited the long-term use of this method of contraception. However, the decrease in both oestrogen and progestin content has led to a reduction in the side effects and cardiovascular complications. Therefore, COCs are now considered a reliable contraceptive option for most women.

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The truth is that contraception saves lives, prevents unplanned pregnancies, improves outcomes for children and reduces the number of abortions. **Ann McLane Kuster**

What's New in Documentation of Tubectomy

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Introduction

Sterilization is a safe and simple procedure performed by the doctors empanelled for performing sterilization. State is required to maintain separate lists for minilap, laparoscopic tubectomy, conventional and no scalpel vasectomy providers. Doctors and staff involved in doing minilap or laparoscopic sterilization also have to adhere to certain documentation practices. In this era of medicolegal litigations, documentation is necessary to safeguard doctors as well as for the patients to get indemnity coverage in case of complications, failure or death.

Also, the Hon'ble Supreme Court of India has directed the Union of India and States/UTs for ensuring enforcement of Union Government's Guidelines for conducting sterilization procedures, and norms for bringing out uniformity with regard of sterilization procedures. It has advised the State Government to not only hold an enquiry into every case of breach of the Union of India guidelines by any doctor or organization but also take punitive action against them. As far as the doctors are concerned, their names shall, pending enquiry, be removed from the list of empanelled doctors.

Documentation before Tubectomy Procedure

Consent Form: It has the authority of a legal document.

1. **Demographic details:** It is necessary to document client's name, age, address, phone number, religion, educational classification, occupation, marital status, husband's name, age, names of all living, unmarried dependent children with the age of each child. The number of male and female children with the age of youngest child also needs to be documented. It is to ensure that client is ever-married, with age more than 22 years and below 49 years. The client has at least one child whose age is above one year.
2. **Documentation of Informed Consent:** The client must sign or put her thumb impression on informed consent form. In case of thumb impression, signature of a witness (any person not associated with the service facility and chosen by the client) is a must. The consent of the partner is not required for sterilization procedure. Before the client signs the consent form, ensure
   - Counselling has been done in the language understood by the client.
   - All available family planning methods have been informed to the client.
   - Client makes informed decision for sterilization voluntarily. It should not be obtained when physical or emotional factors may compromise client's decision.
   - Client understands the procedure and its potential complications. Client should understand the following:
     a. It is a permanent procedure but still has some chances of failure.
     b. It will have no effect on daily routine activities, sexual pleasure or performance.
     c. It does not protect against Reproductive tract infections (RTI), sexually transmitted infections (STI) and HIV/AIDS.
     d. Reversal of tubectomy is possible but has a low success rate.
     e. Indemnity coverage facility is available in the event of any complication/ failure/ death.
     f. There is a need to come for follow up visits to the hospital.
     g. In case of missed period, she should report within 2 weeks of the missed cycle to doctor/ health facility.
3. **Documenting denial of sterilization**: A client on evaluation, if found unfit for sterilization due to medical or non medical reasons, should be offered another method of contraception. Documentation in the prescribed consent form should include:
   A. Reason for denial of sterilization
   B. Action taken by the provider (referral/ treatment)
   C. Alternative methods offered to the client.

   These records should be kept at the service facility.

Medical Record & Check List for Sterilization

1. *Eligibility Checklist* is to be filled before commencing the operation. Check list includes age of client, marital status, number and age of child, medical, mental status of client and consent given by the client.

2. *Documentation of client assessment for sterilization: Client assessment for eligibility to undergo female sterilization is a key factor in minimizing the risk of complications.* Client assessment should include menstrual history, obstetric history, contraceptive history, relevant medical history, physical examination, local examination and relevant laboratory investigations including urine pregnancy test, haemoglobin and urine examination to ascertain eligibility for surgery. The operating surgeon should ensure that the medical records are filled properly; he/she fills the checklist with examining doctor signature and hospital seal below.
3. *Check list of pre-op preparation* of the client i.e. whether the client is fasting and passed urine has to be documented.
4. *Anaesthetist* should document the anaesthesia/ analgesia given to the patient and sign the anaesthesia record. The name of the drug, dosage, route and time of all administered drugs must be recorded.
5. The *operating surgeon* is supposed to document timing of procedure, technique, method of occlusion of fallopian tubes, details of gas insufflations, insufflators used. Also, if during surgery any complication has occurred, then the details of the complication and its management needs to be documented.
6. In case surgeon is unable to identify the tube on one side and thereby could not ligate it, he/she should document it on the case sheet and inform the client accordingly that sterilization procedure has not been successful. This documentation on the case sheet should be countersigned by the client or their thumb impression taken.
7. *Client monitoring* is essential as it enables early detection of complication and its timely management. Medical records are to be maintained on monitoring of vital signs (pulse, respiration and blood pressure), level of consciousness, bleeding and other relevant information. Vitals monitoring chart is to be made preoperative every 15 minutes after premedication, intra operative, and post-operative every 15 minutes for first hour and longer if patient is not stable/ awake. Then monitoring is to be recorded every 1 hour until 4 hours after surgery.
8. *Post operative information* about client condition regarding abdominal distension, passed urine etc. needs to be recorded.
9. Record that information provided before the procedure has been reinforced post operatively verbally regarding permanent procedure, chances of failure, no protection against RTI/STI/ HIV/ AIDS, reversal, return to doctor if missed period, indemnity coverage etc.

Post Operative Information Card (Discharge Slip)

1. Demographic details
2. Date and type of operation
3. *Medication* to be prescribed
4. *Advice*
   - Rest for remainder of the day.
   - Resume light work after 48 hours and gradually return to full activity in 2 weeks following surgery
   - Resume normal diet as soon as possible
   - Keep incision area clean and dry
   - Bathe after 24 hours following surgery
   - In case of minilap and laparoscopic sterilization, the client may have intercourse one week after the surgery. In case of post partum sterilization, client may have intercourse two weeks after the surgery.
5. *Report to the doctor if*
   - Excessive pain, fainting, fever, bleeding or pus discharge from the incision
   - Client has not passed urine, flatus, stool and experiences bloating.
   - Missed period/ no periods. Report within 2 weeks to rule out pregnancy.
6. *Follow up:* Document the follow up visit and include complaints, diagnosis and treatment advised at each follow up visit.
   - After 48 hours
   - On the 7th day for stitch removal.
   - After one month or after first menstrual period, whichever is earlier and also to collect the ligation certificate.
7. *Emergency visit:* Note on the client record all problems and actions taken. Complications and treatment given should be reported to the facility where the tubectomy was performed.

Sterilization Certificate

1. Certificate of sterilization should be issued one month after the surgery or, after the next menstrual period.
2. If client does not have her periods even after one month of surgery, rule out pregnancy before issuing sterilization certificate.

3. Histopathology report of fallopian tubes is mandatory in cases of minilap and postpartum sterilization. The pathologist should report fallopian tubes with comment on lumen of fallopian tubes.
4. Sterilization certificate should not be issued if surgeon is not able to identify tube on one side and thereby could not ligate it. Also such cases are not eligible for compensation for failure under indemnity scheme.

Family Planning Indemnity Scheme

Family planning Indemnity scheme covers death attributable to sterilization within 7 days from date of discharge (Rs. 2 lakh), death attributable to sterilization within 8- 30 days from date of discharge (Rs. 50,000), failure of sterilization (Rs. 30,000) and complication attributable to sterilization procedure (not exceeding Rs. 25,000).

The beneficiary should file the claim document within 90 days from the occurrence of event of complications/ failures /death. Documents required to file the claim document are as follows:

1. Discharge slip/ card will be considered a valid proof for undergoing sterilization procedure.
2. In cases of minilap/ post partum sterilization, histopathology report of fallopian tubes with lumen is essential.
3. Ligation certificate copy needs to be submitted.
4. In cases of sterilization failure, a positive urine pregnancy test and ultrasound report depicting pregnancy is essential.
5. Every single case is reviewed, documents are scrutinized, O.T. registers are checked before the release of funds. Therefore, it is of utmost information to do proper documentation in the O.T. registers, medical record, consent form and discharge slip.

Conclusion

To safeguard themselves, the doctors performing the sterilisation procedures should follow the guidelines laid by the Union of India.

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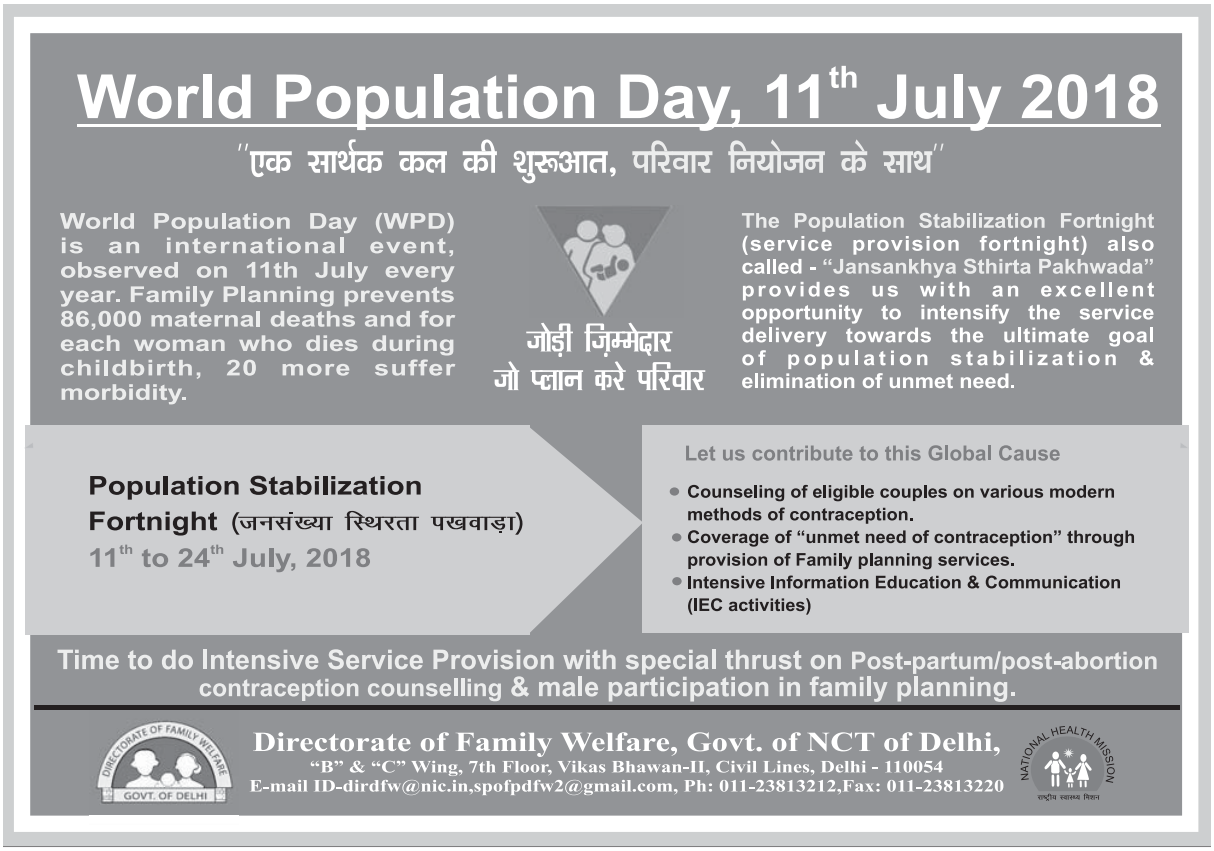

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