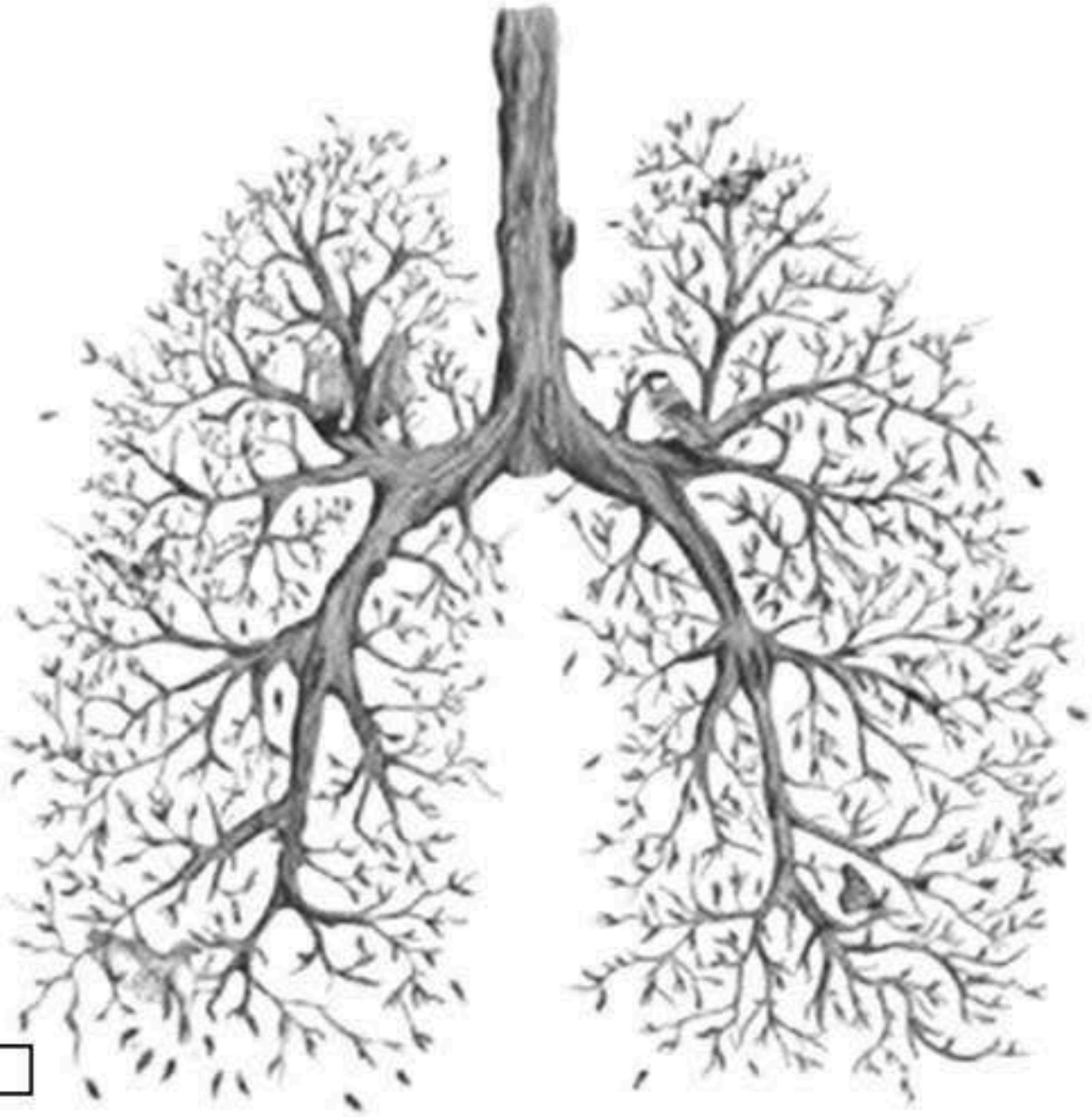


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Slides

Sheet

Lecture # 7

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Antenatal/Post Natal care

&

Family Planning services

In the last lecture we mentioned that preventive maternal services start with premarital, then we said that the main conceptional service offered to the pregnant women is ANC (antenatal care).

We talked about weight and height then urine tests and we reached the ultrasound .

Ultrasound :

-It is the main sensitive and accurate investigation in pregnancy.

-It helps the Doctor to check the medical information concerning :

- 1.The size of the baby.
- 2.The maturity of the baby.
- 3.Detecting any congenital abnormalities.
- 4.The position of the baby and the placenta.
- 5.The growth of the baby (normal/abnormal).

** Sometimes the placenta is planted near the cervix and that is what causes bleeding.

Q : How often should a pregnant woman get an ultrasound ?

A : From 3 to 4 times maximally, but if needed (when there is retardation, congenital abnormalities etc...), we can do it accordingly.

-Notice that an ultrasound has no side effects on the pregnant woman.

-In fact, it is a safe instrument and at the same time it is very sensitive at specific types of investigation.

Risk factors of pregnancy that we should consider during the ANC :

1. Age :

Q : What age is the risk age for pregnancy ?

A : Less than 20 (usually there is a risk of prematurity, congenital abnormalities and preeclampsia ... etc) and more than 35.

*Preeclampsia : **تسمم الحمل**

2. Height and weight :

-Excessive increase of weight starts with something called preeclampsia which includes hypertension, edema and kitionuria. So the excessive increase of weight is the early sign of preeclampsia.

-Very short women (under 150cm) have very contracted pelvis and usually they end up with caesarean section and it is difficult to have normal vaginal delivery. Because of that, height is important sometimes but it is less important in 160 or 165 cm than when it is 150 and below. In this case, we have to do pelvimetry before labor to make sure that the size of the baby can fit the pelvis size.

3. Education, income and residency are under social status :

-Poverty is one of the most important social economic risk factors in pregnancy and in all health services because in poverty the living conditions are poor, the nutrition is poor, the quality of services is poor, the environment of the house is poor etc ...

-The lower the social class is, the higher the risk on pregnancy is.

-Education, income and residency reflect the social class of the woman.

4. Parity :

-The number of pregnancies, usually we put it in two sections :

- The number of living births.
- Abortions

Ex : 3+2 means 3 living children & 2 abortions , 4+1 means 4 living children & 1 abortion etc...

-Any parity of more than five means that complications of pregnancy become more.

-Parity one, primigravida (primipara one): The first time the woman gets pregnant is a risk factor for parity (the pregnancy for the first time or the pregnancy after 5 parities).

-Primigravida : امرأة حبله للمرة الأولى

-Primipara : بكريّة

-The pregnant woman for the first time is new for pregnancy. We don't know how her body will react to normal physiological changes.

-Some people react with complications and others go very smoothly without any complications.

-So the pregnancy for the first time is at a risk factor more than the 2nd or the 3rd pregnancy because there will be previous history and we know how her body is reacting to the normal pregnancy.

5.past medical history :

-If she has pre-existing illnesses, it's very important to know this because some diseases are aggravated by pregnancy such as juvenile diabetes that will get activated by pregnancy so the woman will need higher insulin doses. As well as diseases like diabetes, bronchial asthma and all kinds of infections.

-Juvenile diabetes : سُكْرِي الأَطْفَال

-Aggravated : تَتَفَاقَم

Q : What is the most important kind of infections in pregnancy ?

A : Urine tract infection (very common and it is the number one cause of (maternal) morbidity).

-A study was done in Jordan showing that urine tract infection and vaginitis was on top of the list of the most common causes of maternal morbidity.

-They are more prone for infections especially urinary tract infections because the uterus presses the urinary bladder causing urethrocystitis which in turn causes urine tract infection.

-Urethrocystitis : التَهَابُج المثانة ، تَجَمُّع البول

-Other medical history like hypertension, diabetes, epilepsy, asthma all of these during the pregnancy as well as any immunocompromised diseases (Aids, SLE ,MS). During pregnancy, such diseases are activated. Thus it becomes important that we know the medical history of the woman before she gets pregnant to get her ready for pregnancy.

-Aids : It's an infectious disease . If the pregnant woman is hit by this disease she will be at a high risk at the same time there will be a transfer of the disease through the placenta.

-SLE : Systemic Lupus Erythematosus (multi systemic disease infecting joints, the skin, the heart etc...) الذئبة الحمامية الجهازية ، الحمى الذئبية)

-MS : Multiple sclerosis التصلب اللويحي

6.Past obstetric history :

-We have to know the history of the past obstetrics, if primi (this is the first time she got pregnant), she is classified under risk pregnancy and if she had a past pregnancy, we have to know its history (caesarean section, prematures, stillbirth (the death of the embryo during labor)).

-Those who have stillbirth should have pregnancy complications (such as retardation of growth, hypoxia, respiratory stress syndrome, premature etc .. Here the risk of stillbirth is high).

-So the woman's past medical history, the number of obstetrics (if more than 5, there is a higher risk on pregnancy), if she has any past obstetric complications like caesarean sections is important to be known.

-In a country like Jordan, a caesarean section is not an elective procedure, (not like in America and England where the pregnant

women go and say that they don't want to pass through normal delivery and that they prefer a caesarean section).

-In Jordan, this option is not available. The obstetrician or the family doctor who is following the pregnancy must indicate this to the pregnant woman.

-If she is pregnant after 7 or 8 years of infertility, there will be a very high risk factor on pregnancy and we want to save this pregnancy as much as possible especially if she was pregnant after a long time of infertility.

-Past obstetric history shows us how risky the pregnancy is, at the same time we give her a priority in the ANC. In some countries, they cannot afford ANC for all women, so they take the risky woman and they give her priority for this service.

-In developed countries, the ANC is a must for all women whether risky or not risky.

7. General condition of the woman pre-conceptional :

-Her situation before pregnancy generally, if she has anemia or not, if she has general weakness, hypertension, her pulse, tachycardia etc...

-HB level, nutritional status, blood pressure and all other general conditions.

-If she has anything poor in the vital signs, she will be at high risk pregnancy.

In the following, we're going to talk about three graphs (go to slide 24,25 & 26 to see the graphs).

Every 5 years in Jordan, a health survey is done and usually we refer to it because it is very accurate if it is compared with other studies like reports of WHO or USAID. So our survey is more sensitive and accurate because there is a fieldwork which really reflects the PHC services and general services and the quality of the general medical services in particular the PHC services.

** The first graph is about percentages of Antenatal care in Jordan (according to mother's age) in 2012 and it shows that :

- Most of the pregnant women who come to ANC are aged in between 20 – 34 (99.4%).

-Pregnant women who are below 20 and those who are 35 and above form a lesser percentage (98.3%).

-We notice that the difference in the number of visits to ANC between the two categories is insignificant. It is expected that the second category (Women who are under 20 and above 35) should have more visits to the ANC because it should be a priority for them to avoid any risks.

** The second graph is about Antenatal care in Jordan (according to number of visits) in 2012 and here are the doctor's comments on it :

-Minimum number of visits is from 6 to 7 visits, anything more is considered a well-covered ANC.

-The normal number of visits is 8. The visits should be every month in the first 6 months, every 2 weeks for the 7th & 8th months and once a week in the 9th month.

-It reflects the number of visits. We found 78.6% of pregnant women are covered by more than 6 to 7 visits.

-In the developed world countries the coverage is 100% where as in the developing world countries it amounts to 40-50%.

-In Jordan we are in the upper good shape ☺.

** The third graph shows that the higher social class and the higher education women were coming for ANC more than the lower social class and the no education women who don't think this care is needed. Though the lower social class women may need ANC more.

-Antenatal care centers should provide programs to seek out women unable or unwilling to attend a clinic.

Q : Why is the coverage in the developed world 100% ?

A : Because they have a home delivery and home visits from the nurses, in case the woman cannot reach the ANC and she is registered as pregnant. They follow her by phone and then go to her house if she's not able to come.

-In our countries (developing world), we don't have the service to reach homes and we can't afford it because it costs a lot of transportation etc...

-In the developed world, usually services reach the home even postpartum (After delivery).

-Some women face problems in the primary stages. For example, they could have breast infections or any other problems. She should be educated in the proper way of taking care of her baby and usually the midwives or community nurses in the developed world reach home to help the woman take care of her breast feeding and her baby.

There is something called Antenatal classes mainly for education and exercises .

-In our countries, we tell the pregnant woman that she doesn't have to move but this is wrong because she has to move and she has to practice her life normally unless there is a risk of abortion or bleeding. In normal pregnancy, she has to practice her life very normally. Even in the last months of pregnancy, she should do some exercises like walking, swimming etc.. to improve the muscles of her pelvis to help her to have a normal easy labor (vaginal delivery).

-There are relaxation techniques during labor and birth.

-Information about different kinds of birth and interventions.

-Caring for the baby, including feeding.

-Health after birth.

-Refresher classes for those who've already had a baby.

Common complications in pregnancy :

1. One of the most important diseases of pregnancy is **Anemia**, which comes on top of the list. Anemia is a very common disease and it shows the woman's increasing need for iron. The need increases but the index may decrease because of vomiting and nausea in the early period of pregnancy. Dilatation might happen thus causing the blood volume to increase from 5.5 to 6 thus the hemoglobin becomes less, especially in the 2nd or 3rd trimester where the pregnant woman needs supplements to cover anemia.

Common symptoms of anemia :

Faintness, general weakness, sometimes dizziness, losing consciousness and shortness of breath.

-HB is low so the oxygen blood supply is less, thus if the pregnant woman walks for a short distance, she suffers from shortness of breath.

2. **Gestational diabetes** : It doesn't occur before pregnancy and it becomes less after pregnancy but just occurs during pregnancy.

-It has a high risk because there will be complications due to gestational diabetes and usually this woman has to be monitored after pregnancy to be sure that their blood sugar is back to normal and even if it is back to normal we have to monitor her because she is at higher risk to be diabetic. Even if this woman didn't have gestation diabetes before pregnancy, or after pregnancy is gone, she is generally at a higher risk to be a diabetic patient and if there was another pregnancy she is more prone to get gestation diabetes again.

Common symptoms of gestational diabetes :

Thirst, frequent urination, infections are very common (pregnancy generally make her more prone to infections such as : urine tract infection, vaginitis, toothache, absence of tooth and dumplings, she needs a regular antibiotic coverage that suits her pregnancy because not all antibiotics are allowed during pregnancy).

3.High blood pressure : pregnancy related, means that an increase in the blood pressure is due to pregnancy and she doesn't have previous complications with her blood pressure.

-High blood pressure is **one** of the signs of preeclampsia.

4.Preeclampsia :

- she could have just high blood pressure without the other signs of preeclampsia (Hypertension, edema, ketonuria) and it could evolve to preeclampsia after the 20th week to the 30th week of pregnancy.

Preeclampsia is a late pregnancy disease whose signs appear early but the effect and symptoms starts after the 2nd trimester . Preeclampsia causes high blood pressure, swelling of the hands and the face, stomach pain, unclear vision, dizziness, headache and kidney problems creating too protein in the urine (proteinuria)

5.Miscarriage (abortion) :

If abortion is induced, we are in a big problem. Its complications are very high especially bleeding and infection.

If it was a natural abortion, it will be a complete abortion, which means that it will pass as a regular heavy period.

6.Preterm labor (premature labor) : The duration of normal pregnancy is 40 weeks. Anything less than 36 weeks is called preterm and anything more than 42 is called post-term.

In the post-term, shortage of oxygen, hypoxia and retardation occur.

In the Preterm mortality rate becomes higher. (respiratory distress syndrome, infections, trauma, bleeding and hemorrhage).

Delivery

We have to know 4 things about delivery :

- When was it ? Is it pre-term , post-term or term?
(the best is to be term, pr-term & post-term have risks)
- Where ? Is it in hospital or at home or anywhere she is ?
(the safest place is to be at hospital, to deal with the complications of labor).
- Who is attending the labor ? Midwife (in developed world) or traditional attendants who deliver at home (in developing world) or family physician is running the normal birth or the nurse ?
- Type of delivery:
Was it a normal vaginal delivery or a caesarean operation?
(mortality rate is more in caesarean operations because a caesarean is a surgical operation so it has its complications.
Women could die from anesthesia as simple as that).

Post Natal Care

The most important services in post natal :

-We have to check that the woman is back to normal, her uterus is back to normal etc.

-We have to arrange family planning services. This is the most important service in post natal care. They offer this service after 6 weeks of delivery.

Family Planning Services

Indicators that reflect family planning services :

-Fertility rate : The more developed family planning services are, the less fertility we have. And the less fertility we have, the less mortality.

-One of the most important objectives of family planning is to decrease maternal and infant morbidity and mortality.

-Family planning services are defined as educational, comprehensive medical or social activities.

-Education is number one, it is on the top of the skeleton of the PHC services :

- Education during antenatal.
- Education during premarital.
- Education pre-conceptional.
- Education after labor.
- Education during taking care of her baby.
- Education when her children are in the schools or when they become adults.

-Education is present in all stages of the maternal life because if you know then you can change your life style, if you don't know then how can you change your life style ?!

-On the other hand, knowledge doesn't always have the power to change !

-Human beings usually know very well but they don't use their knowledge and they sleep on it as if they already don't know it.

Ex : Smoking, the simple information that tells how much smoking is harmful is put on the cover of the packet, but smokers act as if they are blind and their minds are covered with dust and they buy it and sometimes they send their children to buy it even if they are too small 6 or 7 years old ! Whereas in the developed world, children under 18 can't buy cigarettes because they are forbidden by law.

The Main Goals of Family Planning Services

1.It enables the partners to determine their family size, giving them the freedom of choice to whatever suits them socially and economically.

2.It safeguards individual health and rights.

3.It preserves our planet's resources.

-It is very important because population growth sometimes happens at the expense of resources and if the resources were limited, then we will have a poor quality of health services.

4.It improves the quality of life (whenever the number was reasonable).

-It is different when having 8 or 9 kids than having 2 or 3.

5.It prevents unwanted or risky pregnancies.

6.It decreases incidents of congenital abnormalities (especially hereditary diseases).

7.It decreases maternal and infant mortality rates.

8.It controls the world population size.

9.It improves all aspects of life standards : economical, educational, health and psychological.

Counseling

-The first step of family planning services.

-We have to educate the woman about the different methods, the right method to the right woman.

-The woman can't decide the method, we should know her history to give her the right method that suits her conditions.

GREAT

- Greet
- Reassure
- Explain
- Answer some questions
- Give the right therapy

Counseling should consider these things.

1.Personal considerations : Her diseases history, whether she's obese, if she's a smoker, if she's taking any medications.

-We have to take the detailed history and personal considerations before we give the right method for the woman.

2. How effective is the method : If the method was ineffective and she was in really bad need of family planning or this space affects her life, we must give her a more effective family planning method.

3. Safety : We have to know the side effects of each method.

4. Cost is very important.

-Because it is a Primary Health Care, the cost should be affordable, whether it is covered by the government itself or by a nongovernmental organization.

-We have to take a detailed history, information of all available methods and all practical points related to the use of the selected method must be discussed in details.

What are the different types of contraception ?

Traditional and modern.

-Traditional methods are the natural methods that deal with the physiology of the body.

Q : What is the most important traditional family planning service ?

A : Breast feeding, minimum of 6 months.

1. Breast feeding (called : Lactating Amenorrhea Method).

-In most of the developing world, they depend on breast feeding mainly because they don't use any other methods.

-There is a risk around 1.8 %~(2%) of getting pregnant at the end of the 6th month of breast feeding. But in order for this to occur, there are number of conditions. The most important condition is exclusive breast feeding which means she doesn't use any other method than breast feeding, feeding the baby

using methods other than breastfeeding increases the failure rate more than 2%. The second condition is to have Amenorrhea which means missing periods. If she gets the period, there is ovulation and there is a possibility of pregnancy.

-It is a cheap method and they depend highly on it in the developing world even nowadays especially after the WHO recommendations for the babies exclusive 6 months breast feeding and this makes breast feeding a successful plan not only for feeding but also for preventing pregnancy.

-It has no side effects and it has advantages not only for the mother but also for the baby.

-This is definitely a immune system whereby the baby is nourished during the first 2 or 3 days and the breast milk here is called colostrums because immunoglobulins are very high in it.

In order for breast feeding to be successful, there are a number of conditions to be met. Basically, There should be **No**

1.Menses

2.Supplementing breast feeding

3.Baby older than 6 months

4.1-2% chance of pregnancy

If any of these conditions is available, the woman should follow other family planning methods.

Other traditional methods :

2.Safe period (Abstinence) : To avoid intercourse during the ovulation period.

Q : when does ovulation occur usually ?

A : It depends on her cycle.

- If her cycle is 30 days, you subtract 14 days so ovulation takes place on the 16th day, if her cycle is 28, then ovulation takes place on the 14th.
- This method requires that the woman has a regular periods.
- The woman should be educated and should can count correctly.
- Partners should cooperate to make this method successful.
- Safe period is 3 days before ovulation and 3 days after it, which means that it is about a week.
- Abstinence completely of sexual life will prevent pregnancy.
- Safe period is to calculate her ovulation period.

3. Withdrawal (Coitus interruptus) : Ejaculation outside the uterus.

4. Fertility Awareness : This method doesn't have anything to do with contraception, but it detects whether there is ovulation or not.

- Body temperature decreases half a degree before ovulation and increases half a degree after ovulation, thus totaling one degree centigrade.
- But this occurs on the day of ovulation. So if we want to prevent pregnancy, we cannot do this on the day of ovulation because a sperm lives for 72 hours whereas the ovum lives for 24 hours. It is, therefore, recommendable to avoid having sexual intercourse 3 days before and 3 days after ovulation because even if we interrupt coitus at the day of ovulation there could be a risk of pregnancy if any intercourse takes place 2 or 3 days before ovulation.
- This method detects if the woman is fertile or not according to her body temperature.



Thanks goes to my DAD for helping me to get the best of this sheet ☺

“ Remember, No matter how bad it is or how bad it gets,
you are going to make it !! “

Best wishes, Your colleague Eman Al-omoush