MIRACLE Academy

قال تعالى (يَرْفَعِ اللَّهُ الَّذِينَ آمَنُوا مِنكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ)

تفريغ OTC
زميلتكم أنفال النعيمات

لجان الدُّفعات

أي اشي مو مكتوب عنده أو مو مخطط عليه بتكون ما حكت عنه اشي !

الكلام بالبوكسات شرح الدكتورة عن الموضوع بالزبط

Medical Eligibility Criteria for Contraceptive Use: Classifications for Combined Hormonal Contraceptives

حكت مارح أطلب منكم تحفظوا ال categories رح تشرح كيسات بدها ايانا نعرفهم

Category 1:
No restriction (method can be used)

1. Thalassemia, iron deficiency anemia
2. Mild compensated cirrhosis
3. Benign ovarian tumors
4. Benign breast disease or family history of cancer
5. Family history of cancer
6. Schistosomiasis
7. Cystic fibrosis
8. Cervical ectropion
9. Viral hepatitis (carrier/chronic)
10. Minor surgery without immobilization
11. Depression
12. Gestational diabetes mellitus
13. Endometrial cancer/hyperplasia, endometriosis
14. Epilepsy
15. Gestational trophoblastic disease
16. Nonmigrainous headaches
17. History of bariatric surgery; restrictive procedures
18. History of pelvic surgery
19. HIV infected or high risk
20. Malaria
21. Multiple sclerosis without prolonged immobility
22. Ovarian cancer
23. Past ectopic pregnancy
24. Parity, parous, or nulliparous
25. PID
26. Postabortion
27. Non-breastfeeding >42 days postpartum
28. Severe dysmenorrhea
29. Sexually transmitted infections
30. Varicose veins
31. Vaginal bleeding-irregular pattern without heavy
32. bleeding or heavy, prolonged bleeding
33. Thyroid disorders
34. Tuberculosis
35. Uterine fibroids
36. Use of SSRIs
37. Use of broad-spectrum antibiotics, antifungals, antiparasitics

Category 2:
Advantages generally outweigh theoretical or proven risks

"هو بجيب تعاش انه تمام في خطوره بكن الـ Benefits أكتر وكمان حسب تقبل المريض"

1. Age ≥40 (in the absence of other comorbid conditions that increase CVD risk)
2. Sickle cell disease
3. Undiagnosed breast mass
4. Cervical cancer and awaiting treatment; cervical intraepithelial neoplasia
5. Family history (first-degree relatives) of DVT/PE
6. Major surgery without prolonged immobilization
7. Diabetes mellitus (type 1 or type 2), nonvascular disease
8. Gallbladder disease; symptomatic and treated bycholecystectomy or asymptomatic
9. Migraines without aura
10. History of pregnancy-related cholestasis
11. History of high blood pressure during pregnancy
12. Benign liver tumors; focal nodular hyperplasia
13. Obesity
14. Breastfeeding 30-42 days without other VTE risk factors
15. Breastfeeding 42 days or more postpartum
16. Non-breastfeeding 21-42 days postpartum
17. without risk factors for VTE
18. Rheumatoid arthritis on or off
19. immunosuppressive therapy
20. Smoking and <35 years old
21. Uncomplicated sold organ transplantation
22. Stable SLE without antiphospholipid antibodies
23. Unexplained vaginal bleeding before evaluation
24. Uncomplicated valvular heart disease
25. Use of antiretrovirals other than fosamprenavir (category 1 or 2 depending on agent)
26. Use of St. John's wort
27. Inflammatory bowel disease (possibly category 3
28. for those with increased risk of VTE)
29. Acute flare of viral hepatitis occurring during use
30. of product (continuation, category 3 or 4 for initiation of product)

Category 3: Theoretical or proven risks usually outweigh the advantages

1. Breastfeeding 21-30 days postpartum with or without risk factors for VTE
2. Breastfeeding 30-42 days postpartum with risk factors for VTE
3. Non-breastfeeding 21-42 days postpartum with other risk factors for VTE
4. Past breast cancer and no evidence of disease for 5 years
5. History of DVT/PE (not on anticoagulant therapy or established on anticoagulant therapy for at least 3 months), but lower risk for recurrent DVT/PE
6. Current gallbladder disease, symptomatic and medically treated
7. History of bariatric surgery; malabsorptive procedures (COCs only, vaginal ring/transdermal patch category 1)
8. History of cholestasis, past COC-related
9. Hypertension; systolic blood pressure 140-159 mm Hg or diastolic 90-99 mm Hg
10. Adequately controlled hypertension
11. Peripartum cardiomyopathy, normal or mildly impaired cardiac function ≥6 months
12. Smoking <15 cigarettes per day and age ≥35
13. Use of fosamprenavir
14. Use of certain anticonvulsants (phenytoin, carbamazepine, barbiturates, primidone, topiramate, oxcarbazepine, and lamotrigine)
15. Use of rifampicin or rifabutin therapy
16. Diabetes with vascular disease or >20 years duration
17. Multiple risk factors for arterial cardiovascular disease (older age, smoking, diabetes, low HDL, high LDL, or high triglycerides and hypertension))
18. Acute flare of viral hepatitis (possibly category 4 depending on severity[initiation])
19. Multiple sclerosis with prolonged immobility
20. Current or history of superficial venous thrombosis

ممنوع استخدامهم تحت أي ظرف

Category 4:
Unacceptable health risk (method not to be used)

1. Breastfeeding or non-breastfeeding <21 days postpartum
2. Current breast cancer
3. Severe (decompensated) cirrhosis
4. Current deep venous thrombosis/pulmonary embolism
5. History/higher risk of deep venous thrombosis/pulmonary embolism (not on anticoagulant therapy)
6. History/higher risk of deep venous thrombosis/pulmonary embolism (established on
7. anticoagulant therapy for 3 months or greater)
8. Thrombogenic mutations
9. Major surgery with prolonged immobilization
10. Migraines with aura, any age
11. Systolic blood pressure ≥160 mm Hg or diastolic ≥100 mm Hg
12. Hypertension with vascular disease
13. Current and history of ischemic heart disease
14. Benign hepatocellular adenoma or malignant liver tumor
15. Peripartum cardiomyopathy, moderately or severely impaired cardiac function; normal or mildly impaired cardiac function <6 months
16. Smoking ≥15 cigarettes per day and age ≥35
17. Complicated solid organ transplantation
18. History of cerebrovascular accident
19. SLE; positive or unknown antiphospholipid antibodies
20. Complicated valvular heart disease

Special Considerations with Combined Hormonal Contraceptive Use

كلما زاد عمر المرأه كلما كانت معرضة أكثر لحدوث VTE مشان هيك لازم ندور على عوامل خطر أخرى لل VTE إبتداءاً بالتدخين؛ إذا كانت أكبر من ٣٥ سنة وبتدخن أكتر من ١٥ سيجارة باليوم ال OC بكونوا totally contraindicated وإذا كانت غير مدخنه هون بنصير نحسبها انه إذا كانت أكبر من ٤٠ سنة بندور على عوامل خطر إذا عندها مثلا ضغط أو vascular diseases أو سكري بهاي الحالة بنفضل ما نعطيها وبتكون category 3 بس بشكل عام إذا كانت أقل من ٣٥ ومدخنه رح تكون category 2 وإذا كانت فوق ال ٣٥ ومدخنه ولكن أقل من ١٥ سيجارة باليوم بتكون category 3

Women Older than 35 Years

بالامتحان إذا بدو يجيك حالة رح يجيك حالة إما تكون category 4 أو ممكن اسألك إذا كانت فوق ال ٤٠ شو عوامل الخطر الي بندور عليها و+ category 2 3 بحكمهم ال ~~clinical judgment~~

Use of a CHC in women older than 35 is controversial, The risks and benefits of using CHCs in women greater than 35 must be considered on an individual basis. It is recommended that use of CHCs (with less than 50 mcg of estrogen) may be considered in healthy nonsmoking women.

Formulations with lower doses of estrogen (less than 30 mcg) have increased the use of CHCs in these women. In addition to the benefit of pregnancy prevention, they may improve or decrease the chance of developing perimenopausal and menopausal symptoms and increase bone mineral density (BMD).

However, the benefits of using CHCs must be weighed against the risks in women older than 35. The increased risk of VTE should be considered especially in perimenopausal women older than 40

Venous Thromboembolism

So we should look into other risk factors for "VTE" Starting from - Smoking -

CHCs should not be recommended in women older than 35 years with migraine (with aura), uncontrolled hypertension, smoking, or diabetes with vascular disease.

Smoking

OCs with 50 mcg EE or more were associated with MI in women who smoked cigarettes

practitioners should prescribe CHC with caution, if at all, to women older than 35 years who smoke.

Category "4"

Smoking 15 or more cigarettes per day by women in this age group is a contraindication to CHCs, and the risks generally outweigh the benefits of CHCs in those who smoke fewer than 15 cigarettes per day.

Category "3"

Progestin-only or nonhormonal contraceptive methods should be considered for women in this group.

هاي للحالة الي هي بتكون أقل من ٣٥ ومدخنه أو فوق ال ٣٥ وبتدخن أقل من ١٥ سيجارة

للحالة ال ٣٥ وبتدخن ١٥ سيجارة أو أكتر

Hypertension

الي بتكون category 4 وضغطها أكتر أو يساوي ١٦٠ على ١٠٠ أو أكتر هاي totally contraindicated
والي بتكون (١٤٠-١٥٩) على (٩٠-٩٩) هدول category 3
والي عندها ضغط مع عوامل خطر أخرى لل CVD هدول category 3
وإذا عندها controlled HTN بدور على عوامل خطر أخرى منهم العمر، سكري، lipid profile، سمنة، تدخين

في بعض المرضى بصيبهم ضغط مع استخدام ال CHC هدول بس اوقف ال CHC برجع ضغطهم طبيعي وهو تأثيره اصلا قليل على الضغط من ٦-٨ ولكن ممكن يكون significant لبعض الناس على حسب قديش already ضغط ال patient

CHCs can cause small increases (ie, 6-8 mm Hg) in blood pressure, regardless of estrogen dosage. Use of low-dose CHC is acceptable in women younger than 35 years with well-controlled and frequently monitored hypertension.

If a CHC-related increase in blood pressure occurs, discontinuing the CHC usually restores blood pressure to pretreatment values within 3 to 6 months.

Systolic blood pressure ≥ 160 mm Hg or diastolic blood pressure ≥ 100 mm Hg is considered a contraindication to the use of CHCs.

Hypertensive women who have a systolic blood pressure of 140 to 159 or diastolic blood pressure of 90 to 99 mm Hg should also avoid CHCs as the risks generally outweigh the benefits.

Risks versus benefits should be considered for women who have additional cardiovascular risk factors along with hypertension.

Women with hypertension who are taking potassium-sparing diuretics, angiotensin-converting enzyme inhibitors, angiotensin receptor blockers, or aldosterone antagonists may have increased serum potassium concentrations if they are also using an OC-containing ***drospirenone***, which has anti-aldosterone properties

3rd generation OC

Dyslipidemia

الي بهمني انه ال dyslipidemia هو CV risk factor فبدي اتأكد إنه المريضة ما عندها عوامل خطر تانيه CV قبل ما أعطيها combined contraceptive

Not good for those with dyslipidemia

Generally, synthetic progestins may adversely affect lipid metabolism by decreasing high-density lipoprotein (HDL) and increasing low-density lipoprotein (LDL).

Estrogens tend to have more beneficial effects by enhancing removal of LDL and increasing HDL levels. Estrogens may also moderately increase triglycerides

the lipid effects of CHCs theoretically can influence cardiovascular risk, the mechanism of increased cardiovascular disease in CHC users is believed to be due to thromboembolic and thrombotic changes, not atherosclerosis.

It is generally acceptable to use CHCs in women with dyslipidemia as the single cardiovascular risk factor.

However, careful consideration should be taken in women with dyslipidemia along with other cardiovascular risk factors and in many cases alternative methods of contraception may be recommended

Diabetes

القصة بالزبط انه السكري أحد عوامل الخطر لل CVD فإذا المريضة تبعتي عندها Other CV risk factors الي حكيناهم قبل وكمان العمر (الي أصغر من ٣٥ سنة have lower risk) فبشكل عام إذا تأكدت انه ما عندها عوامل خطر بدي أشوف شغلة تانية الي هي انه هل هاي المريضة صارلها أكتر من ٢٠ سنة متشخصه بالسكري لأنه عادةً بعد ١٥ سنة ببلش يبين معي ال complications (موجوين بالأحمر تحت) فإذا كان جوابي نعم ما بعطيها غير هيك السكري بحد ذاته is not a contraindication

Any effect of CHCs on carbohydrate metabolism is thought to be due to the progestin component.

However, most products used today with formulations containing low doses of progestins do not significantly alter insulin, glucose, or glucagon release or daily insulin requirements.

CHCs do not appear to alter the hemoglobin A1C values or accelerate the development of microvascular complications in women with diabetes.

Therefore, nonsmoking women younger than 35 years with diabetes but no associated vascular disease can safely use CHCs.

Diabetic women with vascular disease (eg, nephropathy, retinopathy, neuropathy, or other vascular disease) or diabetes of more than 20 years duration should not use CHCs

1] Migraine with aura
2] Migraine without aura
3] Severe headache that is not migraine

Migraine Headaches

Women with migraine headaches may experience a decreased or an increased frequency of migraine headaches when using CHCs, a higher risk of stroke in women experiencing migraine with aura compared to women with simple migraine

Simple SM migraine I should take into considerations if she has other risk factors for VTE.

women with non migrainous headaches may also use CHCs without restriction.

→ have higher risk of stroke

Women of any age who have migraine with aura should not use CHC and women who develop migraines with aura while receiving CHC should discontinue use and consider a ***progestin-only option***.

Women developing migraines without aura while receiving CHCs should have their headaches evaluated to determine severity, evaluate for signs of an aura, and to discuss the risk versus benefit of CHC use.

"SM is Not Contraindicated"

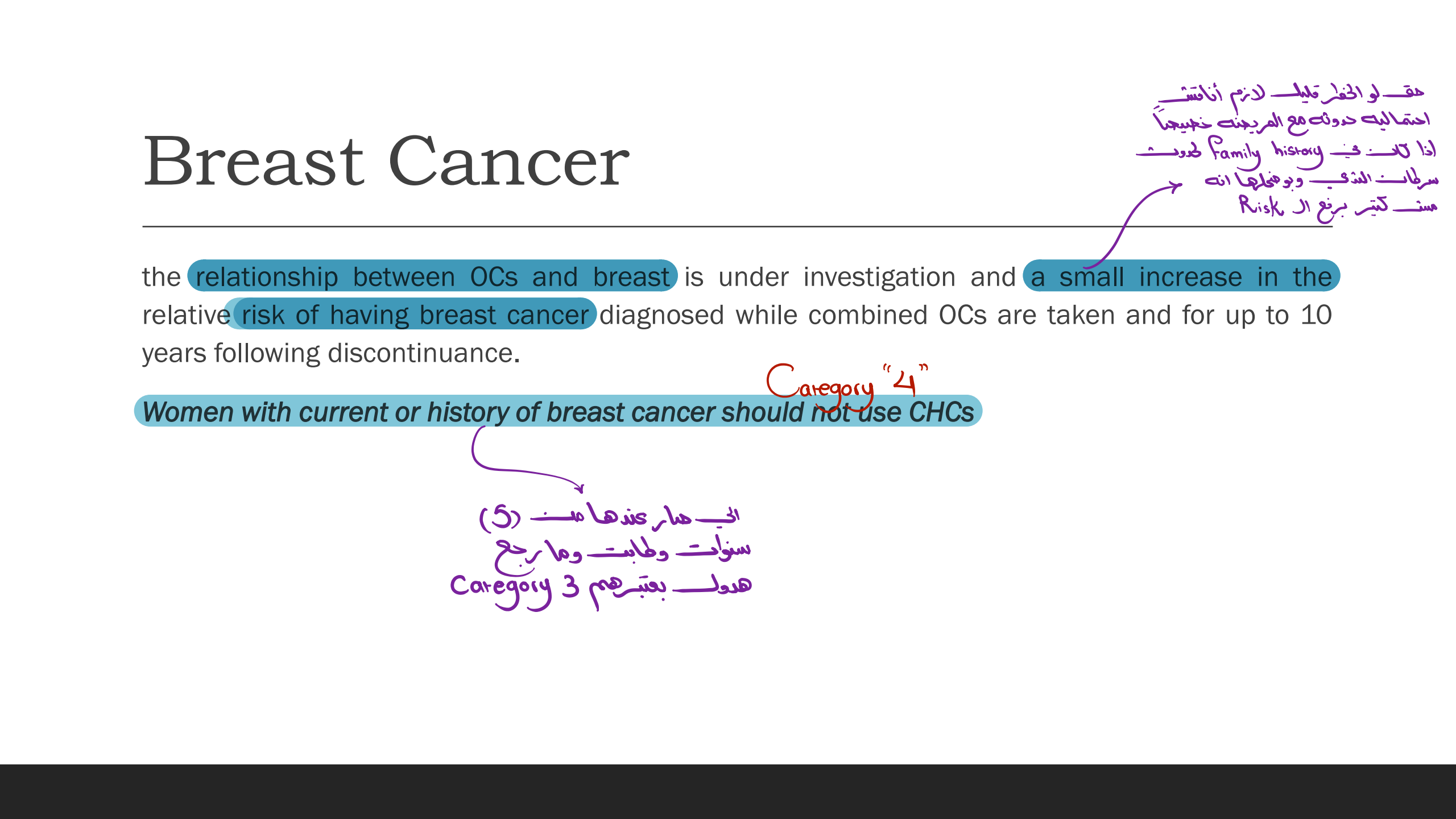
العكس في بعض النساء بصيبها migraine عال menses هدول ممكن اعطيهم ال OC ل ٨٤ يوم متواصلين up to 1 year to prevent menses and prevent migraine

Breast Cancer

the relationship between OCs and breast is under investigation and a small increase in the relative risk of having breast cancer diagnosed while combined OCs are taken and for up to 10 years following discontinuance.

Category "4"

Women with current or history of breast cancer should not use CHCs



+ factor 7 + F.10 ل Hepatic production الـ estrogen بزيد الـ Risk كتير عالي لذلك الـ Totally contraindicated هدول Coagulation factors بالـ اللي عندهم مشاكل
Factor 5 Leiden mutations أو Protein S أو Protein C أو Antithrombin 3 بالـ fibrinogen وبهاي الحالة لازم أحير بالي انه الريحة ما بيكون عندها نقص
أو عندها Systematic lupus erythematosus with antiphospholipid antibodies ← كل هاي الأشياء رح تزيد الـ Risk لـ "VTE" هدول Totally Contraindicated

Thromboembolism

إذا ما كان عندهم هاي الـ Risk factors وعندهم أشياء تانية زي السمنة،
فحالها سبب غير كافي انه ما اعطيه سبب ما بيكون في عامل خطر تاني زي
عالي VTE Risk هدول Surgery ، trauma ، immobility ، malignancies

Estrogens increase hepatic production of factor VII, factor X, and fibrinogen in the coagulation cascade, therefore increasing the risk of thromboembolic events (eg, deep vein thrombosis and pulmonary embolism). These risks are increased in women who have underlying hypercoagulable states (eg, deficiencies in antithrombin III, protein C, and protein S; factor V Leiden mutations, prothrombin G2010 A mutations) or who have acquired conditions (eg, obesity, pregnancy, immobility, trauma, surgery, and certain malignancies) that predispose them to coagulation abnormalities

Therefore, for women who are at an increased risk of thromboembolism (eg, older than 35 years, obesity, smoking, personal or family history of venous thrombosis, prolonged immobilization), it would be prudent to first consider ***low-dose oral estrogen contraceptives containing older progestins, progestin-only contraceptive methods, or barrier methods***

ديروا بالكم هلا بروجيستن في عنا older generation في عنا 3rd generation وفي عنا Anti-androgenic هلا ال older generation همه أقلهم VTE risk يعني
الجداد الي همه الياسمين والياز هدول بالعكس they have a higher VTE risk

Obesity

is a risk Factor For → VTE & CVD

→ it increases the V_d (volume of distribution) of estrogen (Lower blood concentrations)

بالتالي إذا قربت اعطيهم وما كانت عندهم عوامل خطر أعزي لل CVD أو لل VTE لديهم أرفع الجرعة.

The prevalence of obesity continues to rise each year among all age groups including women of childbearing age. It has been hypothesized that women with increased body weight have increased basal metabolic rates and induction of hepatic enzymes, leading to increased hormonal clearance and decreased serum concentrations of hormonal contraceptives.

In addition, women who are obese have more adipose tissue, increasing hormonal sequestration, and decreased free hormone serum concentrations resulting in lower efficacy

Regardless of body weight, intrauterine devices (IUDs), implants, and DMPA have very low failure rates, and progestin-only contraceptives are considered safe in obese women, It should be noted that DMPA is associated withmore weight gain than other methods

Postpartum Use of CHCs

In the postpartum phase, there is concern about use of CHCs because of the mother's hypercoagulability and the effects on lactation.

Category "4"

In the first 21 days postpartum (when the risk of thrombosis is higher), estrogen-containing hormonal contraceptives should be avoided. If contraception is required during this period, progestin-only contraceptive methods may be acceptable alternatives.

It is recommended that women who are breastfeeding avoid CHCs for the first 42 days postpartum in those with risk factors for VTE and for 30 days in those without risk factors.

After 42 days postpartum, there is no restriction to the use of CHCs.

بين (21-30) يوم وماعندها عوامل خطر
Category 3 ← وليست مرضعة

Category 2 or 1 بعد الـ (30) يوم إذا ماعندها عوامل خطر جيروا هب
مايخفى ان عادي هو (30) يوم إذا كانت ليست مرضعة.

Systemic Lupus Erythematosus (SLE)

Contraception is important in women with systemic lupus erythematosus (SLE) because the risks associated with pregnancy are high in this population.

CHCs should be avoided in women with SLE and antiphospholipid antibodies or vascular complications and the risks outweigh the benefits of progestin-only contraceptive use in patient population, The copper intrauterine device may be the best option in this situation.

Category "4"

For patients with SLE *without* antiphospholipid antibodies or vascular complications, progestin-only contraceptives or the copper intrauterine device may be an alternative to CHCs

however, those with SLE and severe thrombocytopenia should avoid the copper intrauterine device and depot medroxyprogesterone acetate injection

Vomiting and Severe Diarrhea While on Oral Contraceptives

بنعاملهم معاملة الـ Missed doses

Efficacy of OCs may be decreased when vomiting or severe diarrhea occurs, and recommendations for dosing OCs in this situation have been developed.

أقل من يومين بقدر نتوقعهم

If vomiting or diarrhea occurs for less than 48 hours then no redosing of OCs is warranted. If vomiting or diarrhea persists greater than 48 hours then continue taking tablets.

If this scenario occurs during the last week of the hormonal tablets, then finish the tablets, skip the hormone-free tablets, and begin a new pack.

Patients should be instructed to use additional nonhormonal contraception until tablets have been taken for 7 consecutive days after the vomiting or diarrhea subsides

Special cases

Emergency Contraception

Emergency contraception (EC) is used to prevent unintended pregnancy after unprotected or inadequately protected sexual intercourse (eg, no contraception, condom breakage, contraceptive mishap, or nonadherence, sexual assault).

Progestin-only and progesterone receptor modulator products are approved by the FDA and recommended as first-line EC options. Insertion of (copper IUD) or prescribing higher doses of combined OCs (Yuzpe method) are other options.

Determining the exact effectiveness rate of EC is difficult; however, the range has been reported to be between 59% and 94%.46 Evidence reported that EC may prevent an average of 75% of expected pregnancies when taken appropriately. It is recommended that women have an advanced prescription on hand or access to an OTC formulation to maximize the effectiveness of EC.

Common adverse effects of EC include nausea, vomiting, and irregular bleeding

Pregnancy Termination

ممنوع صرفها وهاي الأشياء
بتصير بالمستشفيات بس لمعرفتنا
Not an OTC case

For various reasons, medications may be needed for pregnancy termination.

Medications used in early pregnancy (≤70 days) termination include **mifepristone, misoprostol, and methotrexate**, with misoprostol typically being used in combination with either mifepristone or methotrexate or used alone.

1. ***Mifepristone*** is a steroid that binds progesterone receptors and causes abortion by blocking progesterone, softening the cervix, and increasing prostaglandin synthesis, *Boxed warnings* for mifepristone include infection and bleeding.
2. ***Misoprostol*** is a prostaglandin E1 analog. Off-label uses include abortion, labor induction, preventing and treating postpartum hemorrhage, cervical ipening for medical procedures, and treatment of early pregnancy loss. Side effects of misoprostol may include stomach upset, diarrhea, headache, dizziness, and fever
3. ***Methotrexate*** is an immunomodulator that has a variety of uses. It works by inhibiting dihydrofolate reductase and ultimately inhibits DNA synthesis, repair, and cell replication. This medication affects the rapidly dividing cells in the placenta causing abortion. In combination with misoprostol, methotrexate is effective as an abortifacient through the first 7 weeks of a pregnancy. Side effects of the regimen include nausea, vomiting, diarrhea, chills, weakness, and fever.