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Contraception - methods, effectiveness and safety

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Abstract

Introduction

The article provides an overview of the available methods of contraception, effectiveness, safety, advantages and disadvantages of using a given contraceptive.

The use of contraception is becoming more and more popular in society. There are many methods of contraception. The choice depends mainly on the patient's preferences, but diseases and a well-collected history are also important.

The aim of the study

Review the latest literature on methods of contraception

Material and methods

The research was conducted using Articles by PubMed and Google Scholar on methods of contraception

Description of the state of knowledge:

There are many methods of contraception, Hormonal methods include oral contraceptive pills, contraceptive patches, implants, hormone injections. Barrier products such as copper / levonogestrel IUDs prevent pregnancy by creating a mechanical barrier to prevent conception. [1,2] The most common method - the use of condoms prevents sperm from entering the uterus. All products and methods have benefits and potential complications, therefore the method should be selected individually for each patient. [6,7]

Summary:

There are many types of contraception . Some of them are almost 100% effective in preventing pregnancy. [1,3,4,5,] It should be remembered that each method of contraception should be selected individually, depending on the patient's needs. [8,9]

Key words: contraception, birth control pills, non-barrier methods, methods of contraception

INTRODUCTION

According to research [1] from 2010-2014, approximately 44% of pregnancies were unplanned. In developing countries, between 1990 and 1994, 64 out of 1,000 pregnancies were unplanned. Gradually, the rate of unwanted pregnancies is declining. This is due to the increasing use of contraception. Contraception is important in preventing unintended pregnancies worldwide. Proper sex education in schools is also important. [2,4]

Medical methods of contraception include: oral contraceptives, progestogen-only pills, intrauterine implants, monthly hormonal injections, contraceptive patch, vaginal ring, coil, IUD containing copper or levonorgestrel, condoms for men and women, emergency contraception. [1,3] Many contraceptives have other medical benefits in addition to preventing pregnancy, such as reducing the risk of endometrial cancer, ovarian cancer, or reducing pain and menstrual bleeding. Please note that some contraceptives are contraindicated in people with specific medical conditions, such as high blood pressure. Therefore, all physicians should have a basic understanding of contraception given that more and more people are using contraception. [5]

The aim of the study

Review the latest literature on methods of contraception

Material and methods:

The research was conducted using Articles by PubMed and Google Scholar on methods of contraception.

Description of the state of knowledge

It is important for everyone who uses contraception that it is effective. The effectiveness of contraceptives is determined by the so-called The Pearl Index, also known as the Pearl Index, is expressed in numbers and describes the number of pregnancies that occurred during the use of a given method of contraception per 100 regularly intercourse women in one year. The lowest Pearl index has two-component contraceptive pills (0.05-0.3) Oraz wkładki domaciczne (0,1-2,1). [4,6,7]

When choosing a method of contraception, it is important to collect a detailed interview from the patient about the medications taken, chronic diseases or allergies. Prescribing the wrong contraceptive for a patient can cause serious side effects that can be fatal. [9,10]

Examples of contraceptive methods, benefits, side effects and contraindications:

Combined contraceptive pill:

- **Benefits:** reducing the risk of ectopic pregnancy, reducing the risk of ovarian and endometrial cancer, reducing acne and hirsutism, reducing the risk of ovarian cysts, reducing the symptoms of hypothyroidism and hyperthyroidism.
- **Side effects:** acne, hirsutism, weight gain, headaches, thromboembolism, nausea and vomiting
- **Contraindications:** arterial hypertension, migraine, cardiovascular diseases, thromboembolism, pregnancy, cholestatic jaundice, smoking over 35 years of age, significant hypercholesterolaemia and hypertriglyceridemia [6,7,8]

IUD:

- **Benefits:** It stops bleeding almost completely, which is beneficial in the treatment of endometriosis and heavy menstrual bleeding. The IUD does not cause thromboembolic complications, so it can be used in women with heart defects, elevated cholesterol or arterial hypertension.
- **Side effects:** puncture of the uterus during insertion, infiltration of the IUD into the peritoneal cavity, pain in the lower abdomen and sacral area, pelvic infection (PID), heavier bleeding (copper insert), spotting between menstruation (hormone insert), ectopic pregnancy
- **Contraindications:** anatomical defects of the uterus, allergy to copper and Wilson's disease (copper insert), genital infections, heavy bleeding, pregnancy. [4,7,8]

It should be remembered that the IUD can also be inserted in a patient who has never given birth. [9]

Hormone injection

Contraceptive injections work on the basis of progestogens, which are considered one of the safer forms of contraception. They are performed once every 3 months, which is convenient - the patient does not have to remember to take tablets every day.

They are recommended for women who cannot use two-component preparations containing estrogens, e.g. breastfeeding women (6 weeks after childbirth), smoking women and patients over 35 years of age.

- Advantages: lower risk of endometrial cancer, pelvic inflammation (PID), reducing the risk of ectopic pregnancy and uterine fibroids
- Side effects: problems with getting pregnant after injecting contraception - even up to a year after stopping the injection, decreased libido, headaches, weight gain.
- Contraindications: thrombotic diseases, pregnancy, liver diseases, undiagnosed vaginal bleeding, thromboembolism, blood vessel diseases, history of stroke. [6,7,9]

Male condom

The method is 95% effective if used correctly. It can be safely used by people of all ages. It does not require any tests or prescription from a doctor, it is widely available. The main benefit of a condom is its dual role: it protects against unwanted pregnancies and protects against the transmission of STDs. The main disadvantage of this method is its unreliability when incorrect use (may slip or break). Remember not to use damaged and expired condoms. [4,6,10]

The emergency contraceptive pill:

Its action is effective if taken no later than 72 hours after intercourse. This tablet blocks or delays ovulation, if it has not already occurred. [6,7]

It also makes it difficult for sperm cells to enter the egg by thickening the cervical mucus and reducing the thickness of the endometrium.

She is completely safe. The side effect most frequently observed by patients is postponement of menstrual bleeding (or withdrawal bleeding) as well as a single disturbance of the menstrual cycle - the same one in which the tablet was taken. Unfortunately, the tablet will not be effective if you have already ovulated. In Poland, the emergency pill is available on prescription. [6,7,8]

Contraceptive sponge

The contraceptive vaginal sponge combines the features of mechanical and chemical methods of contraception. It is a barrier that prevents sperm from getting into the genital tract, additionally contains 1000 mg of nonoxynol-9. It is effective up to 24 hours after insertion.

The disadvantages of using this method of contraception are the increased incidence of urinary tract infections and bacterial vaginosis.[6,7]

Summary

There are many methods of contraception. Some of them are almost 100% effective in preventing unwanted pregnancy. It is important to choose the right contraceptive individually for the needs of each woman. Poorly chosen contraception can have many undesirable effects. The patient should also be instructed on how to use it, what side effects it has and what to do if contraception fails or is missed, before discharge of contraception. [8,10]

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