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INDUCED MISCARRIAGE AS A MEDICAL, PSYCHOLOGICAL AND LEGAL PROBLEM

INDUKOWANE PORONIENIE JAKO PROBLEM MEDYCZNY, PSYCHOLOGICZNY I PRAWNY

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Summary

This study is an attempt to collect data concerning cases of abortions induced due to medical reasons. Although Polish legislation allows a possibility to terminate a pregnancy, information presented in literature still does not explain, in a

clear and comprehensive way, what the indications for such medical procedures are.

Streszczenie

Praca ta jest próbą zebrania danych dotyczących przypadków poronień wywołanych z przyczyn medycznych. Chociaż polskie ustawodawstwo dopuszcza przerwanie ciąży,

informacje przedstawione w literaturze nadal nie wyjaśniają w sposób jasny i wyczerpujący, jakie są wskazania do takich procedur medycznych.

Key words: induced miscarriage, prenatal loss syndrome

Słowa kluczowe: indukowane poronienie, zespół utraty prenatalnej

INTRODUCTION

An induced miscarriage is a voluntary and an intentional termination of a pregnancy prior to foetal viability. At present, such procedures are allowed in Poland only in the case of specific situations:

- if the pregnancy constitutes a threat to the life or health of the mother,
- if the pre-natal examination or other medical reasons point to a high probability of severe and irreversible damage to the foetus or to an incurable life-threatening disease of the child,
- if pregnancy is a result of a criminal act, provided that the act is described as such by a court decision.

Artificial abortions can be divided into early abortions (up to 12th week of pregnancy) and late abortions (16th-22nd week of pregnancy). The course of the said procedure may result in numerous complications and have an influence on a patient's life [1, 2].

DIAGNOSTIC METHODS

Indications for terminating a pregnancy are most often discovered during pre-natal tests which include, for instance, OSCAR screening introduced within groups of patients characterised by a higher risk of genetic disorders and foetal developmental anomalies occurrence. The main indications for performing

diagnostic tests in early pregnancy comprise the following cases:

- mother's age is above 35,
- having children from the same relationship who were diagnosed with chromosomal defects,
- having children with a diagnosed single gene mutation which conditions a child's disease,
- occurrence of chromosomal aberrations, which can manifest themselves in children, with respect to one or both parents,
- lethal or irreversible abnormalities found during an ultrasound imaging examination,
- abnormal results of biochemical tests which confirm lethal genetic diseases.

The group of patients characterised by a higher risk of foetal disease occurrence is subject to pre-invasive diagnostics. Non-invasive methods include ultrasound imaging examinations, biochemical diagnostics, a double test (AFP, beta-hCG), OSCAR screening (PAPPA-I and beta-hCG level, together with an evaluation of NT and NB) and a triple test (beta-hCG, estriol, AFP). The above methods only specify the probability of chromosomal anomalies. Precise diagnoses are provided by invasive methods, such as amniocentesis, chorion biopsy, cordocentesis and fetoscopy.

Currently, the valid programme of pre-natal tests is based on OSCAR screening.

As far as pre-natal diagnostics is concerned, ultrasound imaging techniques, which have been developing for 30 years, are of great importance. At first, the said methods helped in diagnosing significant anomalies of the central nervous system. Along with the development of technology, the scope of diagnostics became wider and currently enables diagnosing, for instance, foetal anomalies of:

- the central nervous system,
- the alimentary tract,
- kidneys,
- the cardio-respiratory system,
- multi-systems.

As a consequence of development anomalies can be discovered at an earlier gestational age. The primary element examined in the first trimester is NT – nuchal translucency as well as the presence or lack of NB – nasal bone. Diagnostics of the above elements is carried out between the 11th and 14th week of pregnancy. The detectability ratio of chromosomal anomalies of the method is 96 percent. Further routine ultrasound examinations carried out in the 20th week of

pregnancy can reveal heart diseases, presence or lack of kidneys and alimentary tract defects. The NT values correlate with chromosomal anomalies in the period when the CRL (crown-rump length) value of a foetus is between 45 and 84 mm [3]. The risk of Down's syndrome occurrence increases as the thickness of the nuchal fold increases:

- NT = 3 mm – the risk of trisomy 21 occurrence is increased above the risk stemming from a mother's age by three,
- NT = 4 mm – the risk increases by 18 as compared with the risk stemming from a mother's age,
- NT = 5 mm – the risk increases by 28,
- NT > 5 mm – the risk increases by 36.

Another important structure is the nasal bone, the lack of which is diagnosed with respect to:

- 67 percent of foetuses suffering from trisomy 21,
- 55 percent of foetuses suffering from trisomy 18,
- 34 percent of foetuses suffering from trisomy 13,
- 11 percent of foetuses suffering from monosomy X,
- 7 percent of foetuses suffering from the triploid syndrome [4,13, 14,15].

The only way of confirming the established diagnoses is undertaking further invasive diagnostics. The most frequently used methods comprise amniocentesis which was used for the very first time in 1956 in order to diagnose the sex of a baby [5]. The examination is most frequently carried out past the 16th week of pregnancy as a classic examination, less often between the 10th and 15th week of pregnancy as an early examination [6]. An analysis of foetal DNA and a fast identification of chromosomal aberrations are possible due to modern diagnostic methods such as fluorescent in situ hybridization (FISH). However, the method involves some complications the occurrence of which is estimated to be 1 percent. The complications include a miscarriage, premature rupture of the amniotic sac and infection of the egg [7]. Moreover, vaginal bleeding is also observed and, as far as patients with an Rh negative group are concerned, there is a risk of serologic incompatibility. Therefore, one should always remember about immunization prophylaxis. In the case of HIV and viral hepatitis vertical amniocentesis is not performed due to transmission risk.

In 1960s another pre-natal diagnostic method was introduced: chorion biopsy. At first the material was collected through the uterine cervix. At present it is collected through stomach biopsy. Complications and contraindications of this method are similar to those

that characterise amniocentesis. Nowadays, chorion biopsy is carried out between the 11th and 12th week of pregnancy [7].

Patients who were immunized are advised to undergo amniocentesis instead of chorion biopsy [8].

Fetoscopy, during which a thin optic fibre is introduced into the amniotic sac in order to visualize a foetus, umbilical vessels and the surface of placenta, is most often performed between the 18th and 20th week of pregnancy. This method enables performance of chorion biopsy, collecting cord blood and other foetal tissues [9].

METHODS OF INDUCING A MISCARRIAGE

There are three methods of inducing a miscarriage:

- a pharmacological method,
- a surgical method,
- a radiological method.

The first one entails administration of Misoprostol or, less often, Dinoprostol into the uterine cervix, vaginal vault, rectally, intra-amniotically and orally. This type of induction is considered to be safe and widely used. Complications are rare, yet the most frequent ones are: prolonged bleeding, short-term nausea, vomiting, diarrhoea and headaches. The primary contraindication for the pharmacological method is a recently performed operation of the uterine muscle, chronic adrenocortical failure, porphyria, corticosteroid therapy, blood clotting disorders and anticoagulant therapy [10]. Further disadvantages of this method are that occasionally the time of waiting for a result, i.e. a miscarriage, is extended, one fears for the method's success and sometimes the bleeding is massive.

After primary preparation of the uterine cervix contractions of the uterine muscle are induced through administration of oxytocin as an intravenous drop infusion.

The second method is a surgical method.

Depending on the progression of pregnancy, we distinguish sucking out the contents of the uterine cavity, excochleation of the uterus and surgical removal of an egg.

It is helpful to first prepare the cervical canal by using osmotic dilators that contain dried seaweed – a tangle stem [11] – or the previously mentioned pharmacological agents.

Whereas the method of sucking out the contents of the uterine cavity is used in early pregnancy, surgical

methods are used in advanced pregnancy. Preparing the cervical canal with the help of Hegar's dilators might be the cause of isthmocervical insufficiency in subsequent pregnancies. However, it has to be performed before a correctly carried out excochleation of the uterus.

Radiological methods are reserved for pregnant patients with a coexisting neoplastic disease and are used only in the early stage of pregnancy.

COMPLICATIONS OF INDUCTION

Among the most frequently experienced problems of patients who have decided to terminate their pregnancy are psychological problems. Inducing a miscarriage can cause long-lasting, serious emotional disorders which often manifest themselves long time after an abortion. These reactions are called a post-abortion syndrome. This state is characterised by an inability to express anger and rage in the face of guilt connected with termination of a pregnancy. A woman cannot accept the loss of a child and cannot find peace. The post-abortion syndrome is described as a separate type of a post-traumatic stress disorder (PTSD). Physical complications of an induced miscarriage include increased blood pressure, stomach aches, infertility and habitual miscarriage.

Intensification of post-abortion distress symptoms depends on a number of factors, such as: progression of pregnancy, number of previous miscarriages, tendency to rationalize, help provided from the family and friends as well as the attitude of medical staff. As far as the above mentioned syndrome is concerned, one can notice numerous psychopathological symptoms:

1. fear and anxiety, decreased self-trust and, consequently, decreased trust towards others, a feeling of helplessness, a distorted feeling of safety;
2. a pathological course of mourning;
3. mental disorders such as: depression, psychosomatic diseases, neurosis, obsessive-compulsive disorders;
4. no self-control and breakdown of mechanisms controlling aggression, emotional irritability;
5. constant feeling of guilt, inability to forgive, tendency for self-accusations and destructive behaviour towards oneself and others;
6. a feeling of shame;
7. going back to the moment of abortion in thoughts and replaying the events;
8. a sense of unfairness and grievance;

9. problems with accepting one's body, problems within the sexual sphere, promiscuity, frigidity;
10. concentration problems;
11. problems connected with interpersonal relations – keeping the distance and withdrawal from social life;
12. sleeping problems, nightmares connected with abortion;
13. tendencies to undergo abortions in subsequent pregnancies;

Some patients claim that they do not experience any consequences of an abortion because they subconsciously use defence mechanisms. The most commonly used ones comprise:

- distraction through filling free time with work, travelling, frequent shopping, sex;
- taking to additions – alcohol or drug addiction;
- abusing sleep-inducing drugs;
- aggression towards a living child and a partner;
- projecting 'this is not my fault';
- replaying the tragedy;
- denying responsibility: 'I have not done anything';
- encouraging other women to make the same choices in order to confirm the justness of one's own decisions;
- suicide as a fast action or a long process.

Defence mechanisms often fail, especially when a woman who terminated a pregnancy sees other mothers with children or a child the age of which is the same as the age of her own child would have been had she not terminated the pregnancy. 'I become pregnant again' when the living children enter the procreative age or on the anniversary of an abortion or unrealized birth of an unborn child [11].

Termination of a pregnancy might have a significant influence on the life of an entire family. It can lead to negative changes in interactions between its members. The spouses might enter into conflicts that, unsolved, can make a relationship fall apart.

Difficulties experienced in relations with children might be a result of parents' tendency to treat the living child as a 'substitute'. Parents can manifest unrealistic expectations towards their children and be overprotective or emotionally cold. Parenting failures and difficulties in relations can cause parents' frustration and lead to physical or mental violence as well as negligence towards one's offspring.

A pathological, unfinished mourning process following an induced miscarriage is the reason of

problems as far as relations between a child and parents are concerned.

PHYSICAL COMPLICATIONS

The following complications can be observed relatively more often within the group of women who have undergone an induced miscarriage:

1. late complications:

- ectopic pregnancy as a result of tubal atresia,
- scarring of the endometrium and uterine atresia,
- cervical incompetence,
- premature birth,
- more frequent metrorrhagia during subsequent pregnancies,
- more frequent implantation of an embryo in the lower part of the uterus accompanied by the placenta lying low in the uterus – placenta praevia,
- placenta increta,
- serologic incompatibility,
- hormonal disorders and, consequently, dysmenorrhoea, temporary hypothyroidism, tendency to put on or lose weight,
- premature birth, low birth weight of subsequent children.

2. early complications:

- perforation of the uterus,
- uterine atonia,
- haemorrhage,
- infections – endometrium inflammation,
- preserved pregnancy as a result of an unsuccessful procedure [12].

LEGAL ASPECTS OF A LEGAL ABORTION

As far as Poland is concerned, the Act of 1956 on Conditions of Termination of Pregnancy was in force for many years. The act made abortion legal provided that it was performed by a physician due to medical indications, a woman's difficult situation and a justified suspicion that the pregnancy was a result of a criminal act.

However, starting from January 7, 1993 new regulations are in force in Poland. On that day the Act on Family Planning, Protection of Human Embryo and Conditions of Termination of Pregnancy was adopted. Article 4a of the Act on Family Planning, Protection of Human Embryo and Conditions of Termination of Pregnancy states that:

2) a pregnancy can be terminated only by a physician:

- (a) if the pregnancy constitutes a threat to the life or health of the mother,
- (b) if the pre-natal examination or other medical reasons point to a high probability of severe and irreversible damage to the foetus or to an incurable life-threatening disease of the child,
- (c) if there is a confirmed suspicion that the pregnancy is a result of a criminal act.

In all the above named cases termination of pregnancy is conditioned by a woman's written consent. In the case of a minor or a totally incapacitated woman, her statutory representative's consent is required. In the case of a minor aged 13 and above it also required to submit that minor's written consent. As far as a minor who has not turned 13 yet is concerned, consent of a guardianship court is required; yet, the minor has the right to express her own opinion. A case involving a totally incapacitated woman also requires such woman's consent, unless granting consent is hindered by the condition of the woman's mental health.

One should also remember that a pregnancy can be terminated only by a physician who has the first degree of specialization in obstetrics and gynaecology, a title of specialization in obstetrics and gynaecology or a physician undergoing specialization training, provided that the procedure is carried out in the presence and under the guidance of a physician authorised to terminate pregnancies.

For every of the three mentioned cases there is a time limit during which a pregnancy can be terminated. The time limit for terminating a pregnancy constituting a threat to the life or health of the mother differs from the time limit prescribed for the case when a pre-natal examination or other medical reasons point to a high probability of severe and irreversible damage to the foetus or to an incurable life-threatening disease of the child. Additionally, a yet different time limit applies to pregnancies that are a result of a rape.

If a pregnancy constitutes a threat to the life or health of a pregnant woman, the act does not stipulate any time limit for terminating a pregnancy. This means that a pregnancy can be terminated also when it is advanced. However, one should remember that when a pregnant woman's life or health is in danger after foetal viability, there are no grounds for terminating a pregnancy at the cost of foetus' life. A procedure intended to save a mother's life or health should also be aimed at saving her child's life. Consequently, if a

woman's current health state is well enough to wait until foetal viability; one should reconsider terminating a pregnancy. Perhaps both the mother and the baby can be saved.

A threat to a woman's life or health has to be confirmed by a physician other than the one who will be conducting the abortion, unless the pregnancy is a direct threat to a woman's life. The procedure has to be carried out in a hospital.

In the second case, when pre-natal examinations or other medical reasons point to a high probability of severe and irreversible damage to the foetus or to an incurable life-threatening disease of the child, a pregnancy can be terminated prior to foetal viability. The act does not specify the time limit clearly so one should assume that a pregnancy should not last longer than 22 weeks. Medical reasons for terminating a pregnancy due to eugenic defects can be stated only by a physician who is not conducting the abortion. Similarly to the above case, the procedure has to be carried out in a hospital.

If there is a confirmed suspicion that a pregnancy is a result of a criminal act its termination can be carried out when the pregnancy did not last longer than 12 weeks. The occurrence of grounds making termination of a pregnancy legal can be stated by a public prosecutor[12,16].

A circumstance indicating that a pregnancy constitutes a threat to the life or health of a pregnant woman can be stated by a physician specializing in the branch of medicine which is relevant with respect to the disease a pregnant woman is suffering from. For instance, an alleged loss of vision resulting from child birth can be stated by an ophthalmologist. An occurrence of circumstances indicating a high probability of severe and irreversible damage to the foetus or an incurable life-threatening disease of the child can be stated by a physician with a specialization in obstetrics and gynaecology who diagnoses developmental anomalies of a foetus based on performed ultrasound examinations or a physician with a title of a specialist who diagnoses developmental anomalies of a foetus based on genetic tests. A family physician is also entitled to state genetic indications for termination of a pregnancy based on genetic tests as the act does not determine a specialization and, as a result, any physician who has a title of a specialist can do that.

One should also remember that 'a physician employed in a public health care institution cannot

refuse performance of an abortion by quoting the clause of consciousness (article 39 of the act on the profession of physicians) or their religious beliefs if continuation of pregnancy threatens a healthy mother's life or health". However, when a pregnancy is to be terminated due to diagnosed anomalies of a foetus or when a pregnancy is a result of a criminal act, a physician can refuse performance of an abortion, but the health care institution, under which care the pregnant woman is, is obliged to enable execution of her right.

GENETIC COUNSELLING IN POLISH LAW

The wide use of genetics in medicine provides new quality, but also brings new challenges. Medical care which makes use of the newest scientific achievements requires specialist knowledge not only of the probability theory, molecular biology and bioinformatics, but also psychology. One should bear in mind that the majority of genetic tests show a probability of disease occurrence, i.e. only shows that a person is a genetic carrier, but the gene does not have to cause symptoms of a given disease. The uncertainty caused by genetic tests can have a destructive influence on a patient. Consequently, credibility of the said tests is of significance.

The form and organisation of genetic counselling differs in various countries. Whereas in some countries this task is performed by geneticists, in others it is the health care staff that underwent additional training within the scope of genetics or persons specialising in genetic counselling that provide the above mentioned services.

In Poland the situation of genetic counselling is different. Article 31, clause 1 of the act on the profession of physicians and dentists stipulates the patient's right connected with acquiring information on his/her health state, diagnosis, suggested and available diagnostic and treatment methods as well as prognosis. The said responsibilities were also described in the act on healthcare facilities (article 19, clause 1, item 2).

Although the above described regulations provide general guidelines on the scope of information a physician should provide to his patients, there is still no agreement on whom, in what mode and within what time limit could or should provide genetic counselling. A matter of discussion is creation of special teams, the task of which would be informing patients or

appointing persons periodically responsible for fulfilling these obligations.

According to the Medical Code of Ethics, genetic counselling can be provided by any physician, regardless of specialisation. As a patient's good and principles of autonomy are in danger, recommendations contained in the report drawn up by the order of the European Commission are of more importance. The recommendations are as follows:

- (a) Special courses on genetic counselling should be organized.
- (b) Uniform requirements concerning vocational responsibilities and qualifications as well as standards regulating the quality of offered services should be established with respect to medical and non-medical professions. This requires special resources for education within this scope.
- (c) Taking into consideration the opinions of patients, the concerned professional groups should establish general rules which would be binding throughout the entire Europe.

A universally binding standard concerning genetic counselling seems to be the so-called 'non-directiveness'. Non-directiveness means that a person providing a patient with advice should refrain oneself from taking decisions for a patient and hinting a patient to make a decision beneficial from a physician's point of view.

An individual's autonomy was recently acknowledged the primary rule of bioethics and requires physicians not to treat patients in a paternalistic way. The institution of genetic counselling, which accompanies a patient when he/she makes decisions on undergoing tests and when a patient has to face the consequences of the results, has to comply with the rule of autonomy. The complexity level of genetic knowledge makes patients unable to deal on their own with the vast amount of information and a wide scope of actions they suddenly encounter. That is why an institution designed to guarantee an individual's autonomy could limit it.

Instead of looking for an agreement between non-directive and directive counselling one should observe the individualised counselling model which, depending on context, would concentrate on a specific patient and recognize his experiences and current needs.

Introducing genetics and genomics into medical practice can help in improving the quality of life of contemporary and future societies. A wide use of genetic tests by individuals within medical care is

connected with a considerable risk for patients and their families within the social, mental and economic sphere.

A rapid development in genetics requires adopting a more complex model of regulations that will consist of several elements:

- (a) instruments for protecting human rights,
- (b) principles of good clinical practice and deontological ethics,
- (c) acts of greater validity.

A tool which increases an individual's autonomy and protection from dangers connected with using genetics is education. Full use of knowledge of genetic data is possible provided that persons who acquire it are aware of the consequences of the acquired knowledge and can interpret it.

CONCLUSIONS

1. It is still necessary to determine specific indications for carrying out an induced abortion.
2. It seems that the program of pre-natal tests should comprise all pregnant women, not just a selected group.
3. There are no drawn up action standards pertaining not only to diagnostics, but also to pharmacological methods with full admission of used medicine.
4. Before a procedure is performed, a patient should be informed about all possible complications.
5. As far as psychology is concerned, terminating a pregnancy in the pre-natal period does not differ from a child's death and is a tragic event in a family's life which often leads to a shock that changes family relations.
6. A procedure of inducing a miscarriage as per physician's indications requires cooperation of physicians of many specializations, geneticists and psychologists.

SUMMARY

This thesis deals with the topic of an induced miscarriage and presents its definition and types as well as reasons of a spontaneous miscarriage.

The course of specific abortion methods was presented in a very detailed and graphic way. Moreover, the paper presents post-abortion consequences as well as mental and physical complications. The paper also draws attention to the

influence of induced abortions on subsequent pregnancies.

The last chapter of the thesis deals with legal aspects of abortion in Poland starting from 1956, including the changes introduced in 1993.

Finally, as one of the legal conditions indispensable with respect to pregnancy termination are severe lethal anomalies of a foetus diagnosed in early pregnancy, pre-natal diagnostic methods were described.

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