ABSTRACT

Objective: to discuss the risk situations that lead women to abortion that led Intensive Care Units. Methods: A descriptive study, a literature review, the type integrative review, published works on the Virtual Health Library in order to answer the following research question: What are the complications of abortion that generate the indication for hospitalization Care Unit intensive? After reading the articles were screened and stored in a computer for further analysis and discussion. We selected 20 texts including articles, theses, reports and guides to meet the proposed objectives. Results: behaviors aimed at women who had induced abortions evolve as soon as install the framework of hypovolemic shock and / or septic bringing great risk both for the woman and to the fetus. Conclusion: nursing should always be constantly updated to better serve the patients who most often step into the hospitals. Descriptors: Intensive Care Unit; Induced Abortion; Nursing Education.

RESUMO

Objetivo: discutir as situações de risco que levam as mulheres que provocaram aborto às Unidades de Terapia Intensiva. Método: estudo de natureza descritiva, de revisão bibliográfica, do tipo revisão integrativa, em obras publicadas na Biblioteca Virtual de Saúde com vista a responder a seguinte questão de pesquisa: Quais as complicações do aborto provocado que geram a indicação de internação em Unidade de Terapia Intensiva? Após a leitura os artigos foram armazenados em computador e triados para posterior análise e discussão. Foram selecionados 20 textos entre os quais artigos, teses, guias e relatórios a fim de atender aos objetivos propostos. Resultados: as condutas dirigidas às mulheres que induziram o aborto evolvem tão logo instale o quadro de choque hipovolêmico e/ou séptico trazendo grande risco tanto para a mulher quanto para o conceito. Conclusão: a enfermagem deve estar sempre em constante atualização para melhor atender as pacientes que com mais frequência adentram aos hospitais. Descriptors: Unidade de Terapia Intensiva; Aborto Induzido; Educação em Enfermagem.
INTRODUCTION

Abortion is a public health problem and it is not only connected to the natural expulsion of the fetus, but also caused or induced, and it is considered a major cause of maternal death. The World Health Organization/WHO estimates that worldwide about 500,000 women die each year from causes related to pregnancy and 98% of these deaths occur in the developing countries. At these locations, abortion complications are responsible for 15% of all maternal deaths each year and in some cases reach about 50% of mortality.1-2

Induced abortion is very common in Brazil, the practice of teasing him as a last resort to stop an unplanned pregnancy and unwanted is often chosen among Brazilian women from different social classes.3-4 Women of power higher buying resort to abortion in private clinics with safe procedures, however, women with lower income are exposed to unsafe procedures that can still be performed by unskilled practitioners that using dangerous techniques which may cause risk of death or irreversible sequelae.5-6

In a survey conducted in Rio de Janeiro, from 1984 to 1985, low-income slum, showed that 50.9% of abortions treated at metropolitan area were induced, the most affected being women aged 20 to 29 years old.6 The same study, conducted in other parts of the country, found that on average 56% have problems due to bleeding complications and/or infectious complications.3 In the Southeast it was reported 72% complications; already in Piauí found only 23%.4 No wonder that these abortions performed in adverse conditions, are followed by severe complications that require hospital care and not infrequently lead to death.4,7-8 It is observed then increase women who enter the emergency units with obstetric complications as a result of an abortion, evolving and seriously needing treatment and care.

OBJECTIVE

• To discuss the risk situations that lead women to abortion led Intensive Care Units.

METHOD

A descriptive study, a literature review, the type integrative review, published works in the Virtual Health Library in order to answer the following research question: What are the complications of abortion that generate an indication of stay in the Intensive Care Unit? Data collection was performed at

RESULTS AND DISCUSSION

• Panorama

The cases of abortion are the third leading cause of maternal death in Brazil. In Health System are served annually, about 250,000 women with abortion complications. It’s called triggered when results from the use of any external abortion process, chemical or mechanical, may have motivated voluntary or involuntary pregnant woman is considered illegal and may have complications.4,9-10

In most cases, women do not prioritize or, when not violate the complications that may arise. Certainly, the lack of information is the greatest weapon of abortion, since those who commit this act are, in most cases, women and disadvantaged with tiny knowledge on the subject. Even with subinformations surrounding the records of abortion, in general, the official mortality is high. The data show that in 2000, in Greater São Paulo, 119 women who had abortions reported as a cause of his death, only 72.3% of them received medical care. In 23.5% of cases there was no information about the type of care received, and 4.2% had no health care reportedly on their death certificates. In a study in Public Maternity Sierra / Espírito Santo in 2007 that pointed to the subject of women induce abortion, most women stated lack of financial resources, lack of support followed the father of the fetus, indicating the fact of having a stable marital status, limitation of offspring, fear of
losing job and/or have to quit school, family and fear of not wanting finally the child. 11

Given this panorama, we can observe that there are different regional realities about abortion and that there is a range of objectives relevant to women this cause abortion. Moreover, the lack of accreditation of health services and lack of interest in diagnostic care and primary cause increased this index, leaving Brazil as one of the worst countries in diagnostic efficiency and abortion. As a result of these actions, we have a range of possibilities, which can lead to life of women with a serious risk.

● Profile and complications

The texts, most articles were produced by nurses. With regard to the question abortion, it was observed that the most frequent objective was to determine the rates of morbidity and mortality, epidemiological profiling, to investigate the main risk factors, complications and consequences of women that cause abortion. We note that as a result of the high rates are related to women with low education level, low income, high school dropout, who perform an abortion at home and only seek hospital happens when some complication arising from the act. 2,3,7,8,11-12 It was also observed that these are the same women who know more about contraceptive methods.2,3,8,13 About the epidemiological profile class women favored more and more purchasing power, both financial and intellectual, are the more you practice abortion, but who suffers less complications.14

With regard to risk factors, the main predictors were separated / divorced or living with a partner but are not married and did not want to have children; know as many contraceptive methods, however, had no problem with contraception, had a son stillborn at seven months gestation, are housewives and do not have a formal signed.1,3,5,13,14,17 On the issue of religion there is controversy where some say ‘no religion’ is the biggest factor and others say ‘being a Catholic’ is the largest factor.1,13

On the issue of complications from bleeding, hypovolemic shock and sepsis are the most comuns4 and texts is characterized the impact of the need to adopt practices in medical and nursing situations correction 2,18-19 that could be alleviated if abortion was legalized, making women look for specialized sites without fear of prosecution and / or bad treats.5,7,17

The bleeding is closely linked to abortion, because this may be incomplete, leaving remnants still in placental maternal uterine cavity. Shock magna is one of the causes of maternal death, particularly when associated with massive bleeding by reduced perfusion of blood to the tissues and serious metabolic disorders that are contingent. 7,18

The literature states that hivolêmico or hemorrhagic shock is the result of inadequate circulating volume, caused by sudden blood loss.12,15,17,20 Acute loss of fluid volume does not allow compensatory mechanisms to restore a proper blood volume so quickly enough and can lead to many secondary complications such as electrolyte disturbances, acid-base, and organ dysfunction due to hypoperfusion. In cases where the woman stays at home, she begins to lose much blood because of possible infection and possible objects still inside the uterus. It means a lot to recognize the early shock. Only in the early stages is possible to recover the physiological balance. Overcoming these stages the changes may become irreversible, the rebels all therapeutic. One of the simple ways to diagnose the state of shock is the systolic pressure less than 80 mmHg and urinary elimination of less than 25 ml / h. The discarded volume visible, sometimes, is not very useful. The body tries to compensate hypotension with a large discharge of aldosterone and vasopressin into the circulation, causing greater oliguria and renal sodium retention, trying to maintain the volume body still current. The ischemic renal vasoconstriction results from this resulting in the release of renin, angiotensin I, angiotensin II, thereby increasing the vaso pressure.21

In emergencies and maternal responsiveness is critical and needs to review the framework and the alternatives available support within the service. Valuing women’s complaints is relevant and these should always be considered mainly due to instability and compromises there arising. This woman is now a patient of high complexity that needs to have its volume replaced and care intense with respect to acid-base disturbances, renal and blood pressure.

The Ministry of Health in its guide “Maternal Emergencies and Urgencies”9 deals with hemorrhagic shock and directs fluid replacement and correction of coagulopathy should be first class shock diagnose this patient (Table 1).
On admission, the patient in shock may prove anxious, restless, and may be apathetic, confused or comatose, may reveal thirst caused by increased bleeding. The history and physical examination are essential because they can guide the rapid clinical diagnosis, as well as evaluating the severity, location and extent of the event causing the frame, also informing adjuvant disease, and previous relevant to the tratamiento. Held diagnosis should proceed with some conducts emergency as multiparametric including monitoring vital signs and electrocardiographic monitoring, catheterization, central venous catheter for the administration of solutions, monitoring by measuring central venous pressure (CVP) and measure the relationship between pressure pulmonary artery occlusion (PAOP) and cardiac output that will evaluate the appropriate volume replacement. The goal of treatment is to restore blood flow through adequate fluid replacement, thus restoring the transport of $O_2$. The colloids have greater potential expander, but limited by its cost and to be associated with side-effects like hypocalcaemia and decreased fibrinogen (protein colloid), risk of transmitting infections and beyond alloimmunization (colloid of fresh frozen plasma), failure renal dysfunction, platelet and anaphylactic reactions (colloid of dextran). The volume replacement should be careful and thorough. One should constantly observe vital signs as well as monitoring of this patient to the risk of excessive volume can cause heart failure, acute respiratory distress syndrome (ARDS), paralytic ileus and difficulty cicatricial. Another complication is pulmonary edema and/or systemic. Among the undesirable factors in the administration of colloids can cite changes in lung function, coagulation and renal function, as well as allergic reactions. In cases of bleeding class II should be administered isotonic solution and application of two intravenous catheters caliber is mandatory. The replacement of crystalloid usually expensive to 3ml of blood loss, if the woman 9 shows signs of shock blood loss must exceed 1000 ml suggesting a replenishment 3000 ml of solution. If there is a greater loss characterizing class III, the patient presents with sepsis hyperglycemia and hyperinsulinemia since the beginning of the frame. The need for the body to heal and eliminate aggressive agents for vasodilatation and consequent focal inflammation causes this individual consumes too much energy, increasing metabolism and protein production to their need, thereby increasing the body temperature, cardiac output, and oxygen consumption. This is due to overproduction of cytokines, hormones such as glucagon catabolizing, plus an increase in sympathetic activity, since the body is in intense combat against infectious agents. Skeletal muscle constitutes the largest reservoir of amino acids for neoglucogenesis and/or synthesis of acute events causing the frame, also replacement in accordance appropriate activating easing form hormones need 1000 ml suggesting a replenishment 3000 ml of solution. If there is a mandatory. The replacement of crystalloid should be administered jointly with colloid. After administration of the volume of emergency, the patient should receive a blood replacement in accordance with the clinical signs and hemoglobin (Hb) and packed cell volume, with the intention of maintaining adequate oxygen delivery to tissues in anemic patients. However the main justification for RBC transfusion in the ICU has been the simple fact of identification of acute bleeding, regardless of the rate hemoglobin.

In fact, the increased rate of Hb tends to increase oxygen transport to tissues, but otherwise the increase in hematocrit may lead to increased blood viscosity decreasing the flow level microcirculatory thrombosis causing the capillary level. Anemia is not well tolerated in critically ill patients. Several protocols shock correction advocate to maintain a rate of Hb less than 10g/dl.

Sepsis can also be an aggravating after the introduction of rigid non-sterile in the vaginal canal. There is possibility of uterine perforation or bottom of the bag, retention of placenta remains, followed by infection, peritonitis, sepsis and tetanus, as well as some chemicals instilled into the uterine cavity that can cause myometrial necrosis, creating a favorable environment for colonization and proliferation of bacteria, which otherwise serious complication post-abortion. The literature states that over 50% of documented infections in ICUs are associated with gram-negative.

The patient presents with sepsis hyperglycemia and hyperinsulinemia since the beginning of the frame. The need for the body to heal and eliminate aggressive agents for vasodilatation and consequent focal inflammation causes this individual consumes too much energy, increasing metabolism and protein production to their need, thereby increasing the body temperature, cardiac output, and oxygen consumption. This is due to overproduction of cytokines, hormones such as glucagon catabolizing, plus an increase in sympathetic activity, since the body is in intense combat against infectious agents. Skeletal muscle constitutes the largest reservoir of amino acids for neoglucogenesis and/or synthesis of acute

### Table 1. Classification of hemorrhagic shock.

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Class I</th>
<th>Class II</th>
<th>Class III</th>
<th>Class IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>% blood loss</td>
<td>15</td>
<td>20 - 25</td>
<td>30 - 35</td>
<td>40</td>
</tr>
<tr>
<td>Approximate volume of blood loss</td>
<td>850 ml</td>
<td>1.100 - 1.400 ml</td>
<td>1.700 - 2.000 ml</td>
<td>2.200 ml</td>
</tr>
<tr>
<td>Heart rate</td>
<td>Normal</td>
<td>100</td>
<td>120</td>
<td>140</td>
</tr>
<tr>
<td>Systolic pressure</td>
<td>Normal</td>
<td>Normal</td>
<td>70 - 80</td>
<td>60</td>
</tr>
<tr>
<td>Medium Arterial Pressure</td>
<td>80 - 90</td>
<td>80 - 90</td>
<td>50 - 70</td>
<td>50</td>
</tr>
</tbody>
</table>


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phase proteins, often readily apparent consumption and its rapid depletion. Another major disorder is venous sequestration in the peripheral and splanchnic circulation decreasing the cardiac output by reducing the return venous.16,25

Then three bouts are cited: 1-hypoxia due to high oxygen consumption by the body to burn substrates, not even allowing the maintenance of cellular functions; 2-acidosis due to the excessive burning protein for energy in the body helping defense against invaders and 3-oliguria due to sequestration of blood to peripheral vasodilation prioritizes trying to contain/control inflammation. Together these three bouts call Systemic Inflammatory Response Syndrome (SIRS), characterized by further cold extremities, low cardiac output, hypotension, small differential pressure and intense vasoconstriction arteriolar.25

In diagnosing patients in severe cases can be observed hypotension below 60 mmHg, heart failure, SARA: hypoxemia, diffuse bilateral infiltrates on chest radiology; renal failure: oliguria, increased creatinine and urea; disseminated intravascular coagulation: Lifting time thrombin, fibrin degradation products; neurologic disorders: drowsiness, numbness, coma.22

Furthermore, the ICU must resort to some further assessments: blood platelet and leukocyte count, arterial blood gases and electrolytes, urinalysis, coagulation, serum lactate; culture the source of infection, continuous hemodynamic and electrocardiographic monitoring, radiographic chest; other images like ultrasound and computed tomography to locate other sources of infection, with the primary objective to stabilize the patient and avoid any type of surgical intervention, there may be circulatory collapse, increasing the risk of bacterial dissemination and death.23

The maintenance of oxygen should be of primary choice, since the amount needed to maintain body is high in this patient's body and therefore cannot alone restore adequate flow. You can use a Venturi mask or even an assisted ventilation with continuous control of lung function as well as monitoring and arterial blood gases. Volume maintenance should be performed with administration of crystalloid and colloid solution to aid tissue perfusion and supply of substrates. The use of Ringer Lactate is very helpful in these cases. Assisting in stabilizing electrolytes. But there is a risk of pulmonary edema and ARDS. Therefore, the use of a Swan-Ganz catheter, preferably to perform measurement control PVC.9

Furthermore, attention should be given to the vital signs such as increased temperature, decreased systolic pressure pulse and which must always be maintained above 90 mmHg; monitoring of urine output and use of drugs to improve cardiac output. If hypotension is not reversed primarily by volume infusion, the drug of first choice will be the dopamine that, at low doses, activates dopamine receptors, causing vasodilation and increasing renal flow, mesenteric, coronary and cerebral; intermediate doses, active beta-adrenergic receptors, increasing myocardial contractility and cardiac function improvement and in high doses, alpha-adrenergic receptors activates, causing vasoconstriction in all vascular beds (including uterus and uteroplacental circulation).9,22,24

With this must be measure heart rate and blood pressure, as this drug has positive chronotropic effect with reduced intervals; measure the water balance when the same is being used in a dose-dependent opening to the renal vessels in an attempt to effect diuretic, contributing a significant melhora.23 If dopamine does not improve blood pressure, use of other drugs will depend on whether the frame is due to myocardial depression or persistent vasodilation. In the first case it is recommended to inotropic therapy (dobutamine 2-20 mg/kg/min. Or epinephrine 1.8 g/kg/min.) In case of persistent vasodilation, use is vasoconstrictors peripherals (phenylephrine 20-200 mg / min. or norepinephrine 2-8 g / min.).9

Therefore, not only the volume increase must be considered. Antibiotic therapy helps fight the invading microorganisms, giving the chance that the body needs to react. After collection of cultures and identification of bacterial agent should be initiated scheme antibiotics more adjusted to each patient. The literature recommends starting antibiotics with broad-spectrum drug, using an anerobicide (clindamycin or metronidazole) and an aminoglycoside (gentamicin or amikacin). If no response, associate ampicillin or increase spectrum with other fármacos.9

**CONCLUSION**

Over time, the concern in conducting research on the subject proposal has been growing, from interfering in the conduct of professionals, significantly improving the
quality of care provided. The front of abortion care beyond simple behaviors implemented in isolation. Involves since checking vital signs perpassing more intensive care, which is directed to complications that arise randomly in a woman's body interacting with their hemodynamic systems.

The act of provoking abortion is often adopted by women with no prior knowledge about the body; they cannot foresee the consequences of becoming vulnerable. These are made at home, with no preparation sterile instruments, and/or procedures without aseptic techniques. On the other hand, also vulnerable, young women increasingly commit this kind of act consciously. They are people of higher classes who increasingly seek clandestine abortion clinics (since this is not yet legalized in Brazil) believing that the same procedure will find quality and a lower risk.

 Abortions committed with immediate care, mediate and late may have a chance of suffering complications. Unfortunately it is not what happens in most hospitals in the world. Women are admitted with signs of severe hemorrhage may progress rapidly to hypovolemic shock and/or sepsis.

The shock, according to literature, was elected as one of the most common occurrences in women who practice this act. In a sense the use of non-sterile sharps entering the vaginal canal to try to cause a placental abruption and intrauterine asphyxia concomitantly one is not always satisfactory. The use of abortive medications such as misoprostol said also has a prominent place in this respect, contributing to a wide scaling of the uterine wall and can occur up to break this.

 Pipelines for shock draw attention because they are simple and proven, as an acknowledgment by checking blood pressure and urinary content of observation to diagnosis. The history and physical examination give the nurse sound basis for appropriate conduct, giving this safely lead his team in the ICU. Include fluid replacement, checking vital signs and assist in the maintenance of good conduct.

Volume replacement is treated with thoroughness, since a wrong choice of fluid administration for patients with bleeding complications makes a difference. We note that only one type of solution does not result in good conduct. Nurses should pay attention to the signs expressed by the patient that will allow the most appropriate choice. The combination adequacy and solution types existing on the market offer ample options for this method.

In cases of sepsis literature states that their severity will depend on the time of contamination flocked by the patient. Because of abortion often cannot completely eliminate all traces of cellular delivery, these increase the likelihood of an optimal environment for bacterial multiplication. Therefore, a severe and rigid piping is installed because of hypoxia, acidosis and oliguria are taken to correct these instabilities such as the maintenance of oxygenation, perfusion, blood volume and use of antibiotics.

In sepsis the patient suffers much more because of the invading agent installed and the inability of body to fight it. The maintenance of good oxygenation and perfusion assists for the patient can generate cellular energy, aiding in the restoration of functions. Nurses need to be aware that not only a good perfusion and oxygenation are important, but rather, ensure that oxygen reaches the cells and that they exercise their functions. To keep it means great water solubility through proper blood volume, this ensures the patient a faster replacement.

Allied choice of vasoactive drugs such as dopamine which ensures an improvement in cardiac output, antibiotics should always be started on broad-spectrum drugs. We understand that as important as the knowledge and skills are the skills and competencies to understand and identify these patients prematurely gravity that settles there and lead your recovery as quickly as possible.

With this study we can see that the great lack of knowledge about the woman's body turns it into a weapon with an imminent risk of death. The professionals' knowledge about the difficulties in dealing with this patient also confirms that there is install a hard battle for life. It is believed that with this objective, professionals specialize is increasingly caring for these women that enter most frequently in our hospitals, thereby improving assistance that should always be dignified and quality.

REFERENCES


