



Research Article

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# Modern View on Postnatal Rehabilitation of Women 30-40 Years Old

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## Abstract

One of the unfavorable factors of pregnancy and its outcomes for the mother and newborn in primiparous over 30 years is not the age itself, but the "conjugate" extragenital pathology. Its frequency, as a rule, increases with age. Very often, by the age of forty, a woman has three or even more chronic illnesses. These include: hypertension, diabetes and obesity. Also, by late reproductive age, many women suffer any inflammatory diseases of the genitals. It is now recognized that the rehabilitation of such women after childbirth should be comprehensive. It should include magnetotherapy, pressotherapy, general massage and physical exercises. Their integrated use in the postpartum period helps restore the functional state of the puerperium and improve their adaptation to the upcoming physical exertion after discharge from the maternity home. The inclusion of the gymnastic exercises in the regime of the day of the parish woman especially strengthens the peripheral blood circulation and gas exchange, improves the general condition of the woman, accelerates the reduction of the uterus, intensifies metabolic processes, raises appetite and improves sleep. The use of static and dynamic breathing exercises leads to the restoration of a full breathing skill in the puerperas of 30-40 years with participation of the diaphragm and the anterior abdominal wall. Diaphragmatic breathing eliminates stagnation in the abdominal cavity, accelerating the venous circulation, increases the flow of venous blood to the heart, and to some extent strengthens the walls of the abdominal cavity. Thus, complex physical rehabilitation has a pronounced toning and healing effect on the organism of the parturient woman of 30-40 years. Its high-quality conduction from the first days after birth reduces the recovery period and ensures maximum efficiency of the woman's recovery.

**Keywords:** Women age 30-40; Childbirth; Rehabilitation; Health

increasingly sensitive to various negative environmental influences [4-6]. The emerging situation has a very negative effect on the functioning of all internal organs, worsening also the reproductive function [7,8]. In this regard, the category of age-bearing primipara is an object of increased attention of researchers [9-11].

One of the main problems of obstetrics is the course of pregnancy and childbirth, the health of children in this category of women. This problem is especially relevant in recent years, since with the widespread introduction of assistive reproductive technologies into practice, the number of births over the age of 30 increased. In carrying out rehabilitation and rehabilitation measures for such a contingent of women, the state and society bear large but justified material and moral costs [12,13].

An unfortunate factor in the course of pregnancy and its outcomes for the mother and newborn in primiparas over the age of 30 is not the age itself but the "conjugate" extragenital pathology with which the frequency usually increases with age. Very often, by the age of forty, a woman has three or even more chronic illnesses. These include: hypertension, diabetes and obesity. Also, by late reproductive age, many women suffer from any inflammatory diseases of the genitals [14]. In this regard, this category of puerperas is in great need of quality physical postpartum rehabilitation. In order to comprehend this problem, it is necessary to sum up the available information on it. Therefore, the goal is set: to consider the basis of postnatal rehabilitation of women 30-40 years old.

## Features of the postpartum period in women 30-40 years old

The duration of the postpartum period is 6-8 weeks, because so much time is needed for the woman to undergo changes that have occurred due to pregnancy and childbirth. The uterus undergoes the most active development at this time. The myometrium is reduced, the inner surface of the uterus is regenerated, the cervix restored. Epithelialization of the inner surface of the uterus ends by 9-10 days after birth. Completely the mucous membrane of the uterus is restored by 6-7 weeks [14].

Involution of the uterus can be slow. This is due to many factors: age over 30 years, multiparty women, pathological births (anomalies of labor, large fetus). Presence of a medical history, abortions, previously existing miscarriages and transferred inflammatory diseases, uterine fibroids [15-17].

After birth, the onset of maturation of the follicles and the first menstruation in women 30-40 years can be observed at 6-8 weeks. In case of active lactation, menstruation may appear later or come after stopping lactation. The occurrence of ovulation and the onset of a new pregnancy in women 30-40 years old during lactation are not ruled out [15].

With a physiologically occurring postpartum period, a woman is considered healthy, but in this period, it is important to comply with the rules of aseptic and antiseptic. Wound surface of the uterus, open uterine pharynx, microtraumas of the vagina dramatically increase the risk of purulent-septic diseases in the postpartum period [18,19].

The main conditions for purulent-septic diseases in the postpartum period are [20]: the presence of an agent on the wound surface, abundant wound detachment, a large number of lochias, the presence

## Introduction

The development of various pathologies in the human body often goes in parallel with the increase in its chronological age [1-3]. Its presence weakens the overall viability of the organism and makes it

of remnants of membranes and placental tissue, anaerobic conditions for microbes in the birth canal.

At the age of the primipara, the complications that arose after the birth are frequent: the subinvolution of the uterus. Its main causes: the remains of the placenta, not released during childbirth; hematomas and ruptures that have not been treated, blood clots, remains of the fetal egg [21,22].

Often, endometritis can be noted. Its causes: violation of the outflow of blood from the uterine cavity, infection of the uterine mucosa, negligent examination at the gynecologist, non-observance of personal hygiene. Also, women of 30-40 years of age may develop bleeding after childbirth. This, as a rule, is normal. In norm it is not registered already on 7-10 day after birth. In case it is registered later, one should think about pathology. Another pathological condition after delivery in women 30-40 years is mastitis, which is triggered by the ingress of a specific infection into the mammary gland tissue - *Staphylococcus aureus*. Contribute to its development of rare breastfeeding with a large amount of milk, improper care of the breasts, violation of the rules of applying the baby to the breast [23-25].

Thus, the postpartum period in women 30-40 years is very threatening for the emergence of various diseases associated with delivery and the initiation of breastfeeding.

**Components of physiotherapy in the rehabilitation of women 30-40 years in the postpartum period**

Currently, it is recognized that physiotherapy in the postpartum period can include: magnetotherapy, pressotherapy, general massage. Magnetotherapy is characterized by anti-inflammatory effect, which is associated with the anti-edema effect of the factor. This makes it possible to widely use the magnetic field in gynecology in the early postpartum period [26,27].

In the postpartum period, indications for treatment may include: postpartum infections, hypogalactia, nipple cracks, lactostasis, mastitis, phlebitis (inflammatory spasm of the superficial veins of the lower extremities, especially against the background of varicose veins). The course of treatment is 10-15 procedures, depending on the diagnosis and general condition of the woman. It is carried out only after examination by a doctor [28,29].

Doctors use pressotherapy for therapeutic purposes: to eliminate persistent muscle tension and to restore their activity, to treat varicose disease (at the initial stage) and chronic venous insufficiency, to reduce posttraumatic and postoperative edema, which are the main factors in the postpartum period. The effects of pressure therapy are quite different. With its help, the skin elasticity is improved, the edema is eliminated, the lipolysis process is activated, the veins strengthen, the blood flow and nutrition of the tissues is improved, the regeneration processes are strengthened, the immune defense is strengthened (at the tissue level and immunity in general), the entire organism is cleansed and revitalized, relaxing effect [30-32].

During the pressotherapy procedure, the vacuum and compression modes alternate with pauses between them (from 30 seconds to 2 minutes). During compression (about 15 sec), the release of harmful substances from the tissues into the lymph is intensified, and excess fluid is drained from the intercellular space. With a decrease in air pressure, vasodilation and increased blood flow to the tissues are observed. Such a wavy and consistent effect provides excellent lymph drainage, that is, increased lymph outflow in the direction of its natural course [33,34].

The main task of massage in the postpartum period is to restore the functions of the abdominal organs, increase the elasticity of the skin, restore mobility of the joints and spine. According to the results of the research, experts found that women who in the postpartum period took regular massage procedures are much less likely to develop severe forms of postpartum depression, psychosis and chronic fatigue. The positive effect of the procedure on the nervous system was also revealed [35].

Massage has a significant effect on the joints. Under the influence of massage, the blood supply to the joints is improved, and the bag-and-ligament apparatus is also strengthened. This effect in the postpartum period is of particular importance for the joints of the spinal column. In a woman after birth, the joints and muscles of the spine are subjected to increased stress, which is the cause of the pain in the back [30].

Unlike other types of massage in the postpartum period, the central zone of kneading becomes the abdomen. It is this part of the body that specialists pay special attention to. Massage is performed in the supine position on the back, legs slightly bent at the knees. The abdominal muscles are extremely relaxed. Massage of the abdomen has a complex effect. This strengthening of the muscles of the abdominal press, affecting the uterus, improving the work of the gastrointestinal tract. Initially, the stomach is stroked by rhythmic circular movements, clockwise [26]. The next stage is the effect of stroking movements at first on the oblique, and then on the rectus abdominal muscles. Massage is done in two ways. After a massage of the abdomen, rest for up to 20 minutes is useful. It is recommended to do massage of a stomach not less than 10 times.

Thus, physiotherapy in the postpartum period is an important and effective component of the physical rehabilitation of women.

### **The possibilities of therapeutic physical training in postnatal rehabilitation**

The use of physical exercises in the postpartum period helps restore the functional state of the puerperium organism and increase its adaptation to the forthcoming physical exertion after discharge from the maternity hospital [36].

Inclusion of gymnastic exercises in the regime of the day of the mothers' mother can improve peripheral blood circulation and gas exchange, improve the general condition of a woman, accelerate the reduction of the uterus, intensify metabolic processes, increase appetite and improve sleep. The use of static and dynamic breathing exercises will restore the full breathing skill involving the diaphragm and the anterior abdominal wall. Diaphragmatic breathing eliminates stagnation in the abdominal cavity, accelerating the venous circulation, increases the flow of venous blood to the heart, and to some extent strengthens the walls of the abdominal cavity [37].

Exercises for the abdominal and pelvic floor contribute to the rapid recovery of stretched muscles and fasciae, fiber and skin of the abdominal wall and perineum, which in turn will restore normal topographical relationships between the abdominal cavity and the pelvis. Exercise with the participation of the transverse and internal oblique muscles of the abdomen will provide a faster reduction of the muscular elements of the uterus, restore the tone of the ligamentous and supporting apparatus and its normal location. In addition, exercise will regulate the activity of the intestine, empty the bladder and reduce

the phenomenon of ishuria, eliminate stagnation in the pelvic region [38].

In gymnastics puerperas more active lactation due to reflex reduction of the muscular apparatus of the mammary glands. In the normal course of labor and the early postpartum period, the gymnastics should be scheduled for the second day after childbirth. On the 2-3rd day after delivery, the physical rehabilitation complex includes exercises that enhance peripheral circulation, diaphragmatic breathing, reduce stagnant phenomena in the abdominal cavity and pelvic cavity, and exercises to optimize muscle tone, including abdominal muscles. Respiratory exercises are repeated 3-4 times, general restorative exercises 3-5 times [39].

On the 4th-5th day after delivery, with good tolerability of previous occupations, the load is gradually increased mainly by introducing new exercises for the muscles of the abdominal and pelvic floor and increasing the number of repetitions of the previous exercises. The initial positions lying on the abdomen and in the knee-and-wrist position are added [40].

On the 6th-7th day, exercises are introduced in the standing position, the main purpose of which is the development of a good posture, the training of balance. In all classes, attention should be paid to the rhythm of breathing during exercise [41,42].

These daily activities will gradually strengthen the skeletal muscles, contributing to the overall physical strengthening of the body. In the course of classes, a certain set of exercises is often used or individual exercises from different complexes are applied, taking into account the general state of health, the level of fitness and age. Classes often last at least 15 minutes and not more than 45 minutes [12,43].

Physical exercises train working muscles, which is accompanied by the expansion of the vessels feeding them, including closely located organs. Such physical exercises, associated with the load on the muscles of the pelvic floor and abdominal press lead to better nutrition of the pelvic organs, contributing to the restoration of their normal function [26,44].

Thus, regular gymnastic exercises have a pronounced toning and healing effect on the puerperium. Their fulfillment from the first days after birth reduces the recovery period and ensures its maximum effectiveness.

## Conclusion

It is now recognized that the rehabilitation of women 30-40 years after childbirth should be comprehensive. It should include magnetotherapy, pressotherapy, general massage and physical exercises. Their integrated use in the postpartum period helps restore the functional state of the puerperium and improve their adaptation to the upcoming physical exertion after discharge from the maternity home. The inclusion of 30-40 years of gymnastic exercises in the regime of the day of puerperas especially strengthens the peripheral blood circulation and gas exchange, improves the general condition of women, accelerates the reduction of the uterus, intensifies metabolic processes, increases appetite and improves sleep. The use of static and dynamic breathing exercises leads to the restoration of a full breathing skill in the puerperas of 30-40 years with participation of the diaphragm and the anterior abdominal wall. Diaphragmatic breathing eliminates stagnation in the abdominal cavity, accelerating the venous circulation, increases the flow of venous blood to the heart, and to some extent strengthens the walls of the abdominal cavity. Thus,

complex physical rehabilitation has a pronounced toning and healing effect on the organism of the parturient woman of 30-40 years.

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