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PECULIARITIES OF PREGNANCY COURSE IN WOMEN WITH POLYCYSTIC OVARIAN SYNDROME

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Polycystic ovary syndrome (PCOS) is the most common endocrine disorder in women, reaching 20-25% [1, 2]. It is a multifaceted disease that affects various aspects of a woman's life, such as aesthetics, reproduction, metabolism, psychological well-being and sexuality [3]. PCOS is a heterogeneous condition in which women have a significantly higher risk of infertility and cardiometabolic risk factors that are exacerbated by a higher prevalence of overweight and obesity [4]. Insulin resistance (IR), hyperandrogenism (HA) and obesity are thought to play a key role in the pathophysiological mechanism of PCOS [5, 6].

Since HA, as one of the main symptoms of PCOS, affects the functions of the uterus and ovaries, this contingent of women, despite the onset of pregnancy, may have a high risk of complications during its course. In addition, HA may also persist in these women during pregnancy [7].

Women with PCOS have an increased risk of adverse pregnancy outcomes and neonatal complications [8, 9]. The course of pregnancy in women with PCOS is associated with a higher risk of obstetric complications, including miscarriage, preterm

birth, fetal growth retardation, perinatal death, gestational hypertension and preeclampsia, gestational diabetes mellitus (GDM) [5, 10, 11, 12, 13, 14, 15, 16, 17, 18]. Women with PCOS show an increased risk of pregnancy complications, but the specific mechanisms are known to remain unclear. However, pathology that is associated with PCOS, namely HA, obesity, IR, dyslipidemia and others, may play a critical role during trophoblast invasion and placentation [19].

PCOS is an independent and significant risk factor for miscarriage in pregnant addition, positive association women [20]. a between prepregnancy overweight/obesity in PCOS women and miscarriage rates has been confirmed to date, which is a major factor contributing to poorer pregnancy outcomes [11]. Obesity modifies the risk of adverse obstetric outcomes in women with PCOS, namely gestational diabetes, gestational hypertension, and preeclampsia, and increased risk of cesarean delivery and decreased the likelihood of spontaneous vaginal delivery [21]. There are multiple mechanisms linking overweight and obesity to stillbirth. One possible explanation for the increased risk of stillbirth in women with PCOS may be mediation through fetal growth retardation [22]. Women with PCOS have an increased risk of GDM, especially in obese women [3, 23, 24, 25, 26]. The risk of hypertensive disorders during pregnancy is also higher in women with PCOS [27, 28, 29].

Current research suggests that PCOS is an independent risk factor for placental abruption, congenital anomalies, chorioamnionitis, and maternal infection. However, it is important to take into account the risk of other concomitant diseases which are often found in this contingent of women [16]. Such an example can be concomitant hypothyroidism in patients with PCOS, which significantly increases the risk of preeclampsia [30].

Women with PCOS are prone to depression and anxiety and may therefore have a risk for postpartum depression [31]. Thus, numerous studies confirm that women with PCOS have an increased risk of both cardiovascular and mental complications in postpartum period [32, 33, 34]. Therefore PCOS is a disease that affects not only a woman's fertility, but also increases the risk of complications during pregnancy, as well as the risk of psycho-emotional disorders before and after childbirth [31, 32, 33, 34, 35].

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