

# Ovarian Hyperstimulation Syndrome and Its Relation to Pregnancy

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## INTRODUCTION

Ovarian Hyperstimulation Syndrome (OHSS) is an iatrogenic complication manifested by supraphysiological ovarian stimulation. This syndrome is commonly related to assisted reproduction [1]. OHSS has been associated with an increased risk of miscarriage, multiple pregnancies, and more severe clinical course of the syndrome [2]. However, there are only few studies examining the relationship between OHSS and pregnancy, and more consistent studies are needed.

## METHODS

A systematic literature review was conducted. Articles examining ovarian overstimulation syndrome and its links with pregnancy were selected. The systematic literature review was performed using the PubMed (Medline) scientific database, selecting publications in English and Lithuanian while using keywords: “ovarian hyperstimulation syndrome“, “OHSS treatment“, “pregnancy“. An analysis of 40 articles was performed and duplicates have been removed as well as articles and summaries that did not match the topic. The full texts of these publications have been examined and 23 articles have been selected. The effort was to focus on publications from the last 5 years, however, citation period was not limited.

## CONCLUSIONS

OHSS is an iatrogenic complication that can occur at different stages and degrees due to variety of risk factors and prevention. Mild to moderate OHSS is often a transient condition, however, severe OHSS can be potentially life-threatening. Miscarriage and preterm birth are associated with OHSS. Links have also been found between this syndrome and gestational hypertension as well as low birth weight.

## AIM

To discuss manifestations and treatment of OHSS as well as its possible links with pregnancy complications.

## RESULTS

Studies show that OHSS prevention is selected individually based on risk factors, anti-müllerian hormone concentration, and number of tertiary follicles [3,4]. It is indicated that the most common initial symptom of OHSS usually is bloating caused by increased measurements of ovaries [5]. More severe cases include symptoms such as renal failure or ascitis due to increased permeability of blood vessels [5]. Mild to moderate OHSS may regress spontaneously and treatment is not always necessary [6]. Patients who develop signs of severe OHSS should be hospitalized and treated conservatively and (or) surgically [7]. Nastri *et al.* suggest that in case of unclear pathogenesis of the disease, only symptomatic treatment is possible [6]. Despite the fact that IVF is considered a safe pregnancy measure, OHSS risk remains increased compared to natural conception [8]. Recent study, conducted in 2020, indicates a correlation between OHSS and an increased risk of miscarriage, preterm birth, gestational hypertension and low birth weight [2].