

## VKH AND PREGNANCY THE OBSTETRICIAN'S POINT OF VIEW A CASE REPORT

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### ABSTRACT

Vogt-Koyonagi-Harada associated with pregnancy is a problematic situation that raises so many questions; not just the ones about the course of the disease itself, but also about the prognosis of the pregnancy and childbirth. In addition to the inflammatory process that affect, selectively, tissues in the maternal body, there are other complications that appear to be important enough to consider, especially when it comes to abortions, fetal low birth weight and, in some cases, fetal malformations.<sup>[1]</sup> The management of such a rare condition, requires a team work between all medical disciplines in order to choose the best therapeutic strategy; that must establish a balance between the healthcare of the mother and the newborn, while keeping the VKH disease under control.

**KEYWORDS:** Vogt-Koyonagi-Harada, Pregnancy, Childbirth, The Obstetrician, Corticosteroids, immunosuppressive therapy.

### INTRODUCTION

Vogt-Koyonagi-Harada (VKH) is an autoimmune disease responsible for the destruction of tissues loaded with melanocytes, thus leading to a generalized inflammatory reaction with several clinical symptoms such as : ocular, skin and meningeal signs. It is a rare condition, even less common in Africa; but usually seen in women which makes the association between pregnancy and vkh disease quite common. This situation confronts the medical team with a difficult dilemma of making the right therapeutic choice; that complicates the management and monitoring of pregnancy by the obstetrician.<sup>[1,2]</sup>

The main goal of this work is to report a clinical case of this rare disease in our country when it is associated with pregnancy., but this time through the obstetrician's point of view.

### OBSERVATION

It is about a 24-years-old female patient, Who has been treated for vogt kayanagi harada disease for 9 years. The diagnosis was made, initially, following the quick bilateral decline of visual acuity associated with vitiligo and the slit exam showed an anterior granulomatous uveitis, which is why the patient had received : In the beginning systemic corticosteroids then oral treatment for

several months as well as vitamin supplement based on : Potassium, calcium and vitamin D3. The course of the disease was marked by an increase in its hostility causing severe bilateral ocular damage predominantly in the right eye: 2/10 hence the need to wear glasses that improved the visual acuity. became: (Right eye: 5/10 left eye 9/10) During this long therapeutic period, the patient went through three spontaneous miscarriages not curetted and one single pregnancy carried to full term giving birth to a newborn female, her birth weight was 4 kg, of good psychomotor development; currently 3 years old without apparent malformation.

Few months before the current pregnancy, we noted an exacerbation of the ocular inflammatory process the one typical of the progressive stages of the disease without retinal detachment, thus marking the transition to chronicity. It was decided to put the patient on a combination of oral corticosteroids and immunosuppressive therapy : Azathioprine, that was continued all along the pregnancy and other medication that were prescribed by her obstetrician such as : progesterin : utrogestan 200 mg / day and Aspégic 100 mg / day from the first trimester. In the second trimester, the pregnancy was complicated by the development of gestational diabetes that was balanced on diet alone. The Ultrasound follow-ups did not reveal any kind of fetal

complications. The pregnancy was carried to term without threat of abortion or premature labor.

The patient was admitted to the emergency room in labor: the initial examination showed a stable visual acuity (wearing glasses) and the measure of the uterine height was excessive: 35 cm. the ultrasound exam showed an initial fetal weight evaluation of: 4 kg 200.

Given the favorable obstetrical conditions, the vaginal delivery was accepted with close supervision, during labor monitoring the patient presented with a fetal dysproportion, hence the decision to extract immediately via cesarean section giving birth to a female newborn with an Apgar of: 10/10 and birth weight: 4kg 100.

The physical assessment of the newborn was normal (no malformations found) and the initial capillary blood sugar value was: 0.8 g/dl. The newborn was admitted in neonatology department for fetal macrosomia to benefit from a close monitoring.

In the postpartum period; the VKH disease was stable without significant consequences and the corticosteroid-induced gestational diabetes had disappeared.

## DISCUSSION

The association between VKH and Pregnancy is an interesting topic to discuss; although the disease itself appears to be rare, the studies have shown a clear predominance of women over men, which makes this situation more common among the population affected by the disease<sup>[2,3,4]</sup> It is known that pregnancy improves the prognosis of autoimmune disorders; since it induces a state of immunosuppression by inhibiting the inflammation mediators (Interleukins and Cytokines) and by suppressing the cell-mediated immune response; this explains the stability of the inflammatory damage and the positive outcome of VKH disease in pregnant women, especially when the pregnancy follows a pre-existing VKH. Pregnancy also increases the production of corticosteroids which decreases the inflammation during the first and second trimester. However, a complete resolution of the disease has not been observed in all cases, which is why the treatment during pregnancy appears to be necessary. In literature, several complications have been observed and considered as side effects linked to corticosteroid-based treatment; for example corticosteroid-induced gestational diabetes and vitamin D3 and calcium deficiency; but because of the lack of randomized trials to support the causal link, the origin of other complications such as abortions, premature labors and fetal malformations remains unknown.<sup>[3]</sup> Board 1.

This is why the therapeutic aspect, has an important place, since it puts the medical team in front of a dilemma: Reduce and stabilize the progress of the inflammatory state: which requires the use of a specific medical treatment based on corticosteroids and

immunosuppressive drugs and, on the other hand, expose the mother and child to several risks, in particular: abortions, premature deliveries and fetal malformations.<sup>[6]</sup>

The optimal management, then; requires multidisciplinary discussion between internists, ophthalmologists, obstetricians and neonatologists, in order to choose the most appropriate medical strategy, without worsening the maternal-fetal prognosis and to carry out the pregnancy and childbirth in good conditions.

The role of the obstetrician begins long before pregnancy occurs. A woman followed for VKH with a desire to become pregnant should then benefit from a pre-conceptual consultation to assess the progress of the disease and discuss with the couple, the ideal time for pregnancy. The aim is to plan pregnancy away from the acute episodes of the disease and to avoid the need for systemic and high doses of corticosteroids.<sup>[7]</sup>

So far, the treatment of VKH in pregnancy is not yet standardized. There is no consensus regarding the use of systemic and high dose of corticosteroids in the treatment of pregnant women with VKH.<sup>[6,7]</sup> However, the therapeutic policy should be chosen according to the severity of the disease, the term of the pregnancy and the fetal state with a multidisciplinary medical team. It was then decided to reduce the dosage of corticosteroids to a daily corticosteroid dose  $\leq 15$  mg / day in the first trimester given the risk of embryopathies.<sup>[8]</sup> According to scientists, there is a possibility of improvement without the need of a systemic therapy.<sup>[10]</sup> However, in other published cases, pregnant women treated with high systemic doses of corticosteroids and topicals did not have any complications during the treatment in pregnancy or postpartum period.<sup>[8,9,10]</sup> The corticosteroids of choice during pregnancy are: prednisone, prednisolone and methylprednisolone given the low passage through the placenta.<sup>[9,11]</sup> Azathioprine is the only immunosuppressive drug, that is authorized during pregnancy, which has both good tolerance and good efficacy, it is used in several autoimmune diseases during pregnancy without increasing the risk of fetal infection; however, it can cause a mild hepatic toxicity without affecting the liver function, hence the need for hepatic function tests before and during treatment.<sup>[12]</sup> From the first prenatal consultation, the patient must understand the importance of a regular monitoring of the pregnancy and warned about the possible risks. It is common practice to recommend rest, to prescribe local progestins (prevent abortions) and to start vitamin supplementation to prevent hypocalcemia and Vit D3 deficiency. Also, the possibility of a gestational diabetes induced by corticosteroids, should be kept in mind, the management of which requires the assistance of an endocrinologist. The main complication of gestational diabetes is fetal macrosomia, which determines the prognosis of childbirth, but also fetal and neonatal well-

being through its multiple metabolic disorders in the newborn. Obstetrical ultrasound is an important tool in the medical supervision.<sup>[14]</sup> It allows to follow fetal growth and therefore to diagnose fetal growth restriction, macrosomia and also to look for malformations.<sup>[13,16]</sup> As the term approaches, the choice of the way of delivery depends initially on the obstetrical indications: taking into account local obstetrical conditions, the existence or not of a fetal macrosomia; and also the stage of VKH disease, especially the retinal state: an inflamed retina becomes fragile which increases the risk of retinal detachment during the uterine contractions in vaginal

birth. Under these different conditions, the choice of a prophylactic cesarean section can be the best decision.<sup>[13]</sup> In post partum, the evolution often goes in the direction of the stabilization that goes along with the return of the patient's body to the normal state before pregnancy.<sup>[6]</sup> A complete clinical examination for malformations of the newborn is required. In case of a fetal macrosomia; the newborn must be immediately taken into care, by neonatologists, to prevent neonatal hypoglycemia and to check for other the metabolic disorders. Breastfeeding is recommended and encouraged even while taking corticosteroids.<sup>[3]</sup>

Maternal complications	Fetal Complications
Gestational Diabetes	Fetal death
Arterial hypertension	Spontaneous abortion
Premature ruptured membranes	Preterm Delivery
Avascular bone necrosis	Fetal growth restriction
Ostéoporosis	Adrenal dysfunction chez nouveaux nés
	Lipodermoids, epibulbar dermoid, preauricular appendages
	Fetal macrosomia
	Oral Clefts (in the early stages of pregnancy)

**Board 1 [3]** : Multiple Maternal and fetal complications observed when VKH disease is associated with pregnancy.

## CONCLUSION

The prognosis of pregnancy and childbirth in women with VKH disease, largely depends on the multidisciplinary management. Any woman who has been diagnosed with the VKH disease and who desires to become pregnant, should benefit from a pre-conceptual consultation with the obstetrician in order to plan her futur pregnancy away from acute episodes of the autoimmune disease. The role of the obstetrician also extends during pregnancy through regular follow-ups : prenatal consultations, looking for possible complications related to the specific treatment of the disease which, may interfere with the obstetric care, especially when it comes to choosing the right way of delivery.

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