

## **Use of oxytocin during spontaneous labor; Maternal & fetal consequences and evaluation of the different protocols: Literature review**

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**Objective:** Evaluation of the maternal and fetal consequences following the administration of oxytocin during spontaneous labor and analysis of the different protocols of use in order to optimize labor.

**Material and Methods:** We have focused our research on Cinhal, Pubmed, Cochrane, Embase, Cebam, Midirs and Pascal libraries. The research has brought 22 articles for the first part of the question, including 4 systematic reviews, 1 meta-analysis, 2 randomized trials and 15 observation studies including one investigation by the WHO (cohort, case study). These studies were published between 2010 and 2014. The research regarding the second part of the question brought 13 articles, including 2 systematic reviews, 3 randomized trials including two double-blind protocols, 5 observational studies and one literary review.

**Results:** The results show a use of oxytocin associated with uterine hyper-stimulation with sometimes an impact on the fetal cardiac rhythm that imposes an intervention. Oxytocin seems to also be involved in an increase in the occurrence of postpartum secondary to uterine atony. Finally, the results show a significant decrease in the labor time without impact on the incidence of cesarian.

The protocols involving high dose of oxytocin show a reduction of the first phase of the labor. There is no significant difference regarding the rate of operative delivery between both protocols (low dose/high dose), nor for the maternal and fetal morbidity. The administration of oxytocin in a pulsating or discontinued manner is not recommended as it prolongs the labor time and increases the maternal and fetal morbidity. The setting of specific directives related to the indication of oxytocin reduces its use, increases the incidences of vaginal delivery and decreases the neonatal morbidity.

**Discussion:** A great part of our studies were quality studies (several systematic reviews and one meta analysis), which brings a good level of statistical evidence. However, several bias were recurrent in the studies, mostly indication bias, treatment bias and confusion bias. A big part of the studies have been large scale observational studies.

**Conclusion:** Oxytocin is a drug that needs to be used following protocols or special directives in the care units. However, before that, it seems necessary to set up a consensus on the limits of a physiological labor. Further studies are encouraged for better clarity.

### **Biography**

Rabab Mosbah is a Obstetric gynecologist, also specialized in surgery for benign pathologies and cancerology (breast and pelvis). She currently installed in clinic. She also regularly train in breast reconstruction surgery. She is the secretary of the French-language French college of lifestyle medicine (cflm) whose goal is to develop prevention and improve the way of life to avoid the appearance of chronic diseases. She is also an expert in medical leadership, helping and assisting doctors in their careers.

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