

Salwa Ak1



# بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

مركز الشبكات وتكنولوجيا المعلومات

قسم التوثيق الإلكتروني



Salwa Akl



# جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
علي هذه الأقراص المدمجة قد أعدت دون أية تغييرات



Salwa Akl



بعض الوثائق الأصلية تالفة  
وبالرسالة صفحات لم ترد بالأصل



**GENERAL VERSUS SPINAL ANESTHESIA IN  
PREECLAMPTIC PATIENTS UNDERGOING  
CESAREAN DELIVERY**

THESIS

by

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ  
أَلَمْ نَجْعَلِكَ أَنْفُسًا حُرَّةً أَمْ لَكَ آلَافٌ مِمَّنْ  
أَمْ لَكَ آلَافٌ مِمَّنْ



صدق الله العظيم

سورة العلق الآية (5)

**To**  
**My parents**  
**&**  
**Wife**

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# INTRODUCTION

## INTRODUCTION

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## AIM OF THE WORK

The choice of anesthesia for preeclamptic women undergoing cesarean section has been controversial for a number of years. In the past, regional anesthesia, both spinal and epidural, was avoided in women with preeclampsia. Current clinical experience however, has demonstrated the relative safety and value of well-managed incremental epidural anesthesia in preeclamptic women requiring cesarean section. Indeed, lumbar epidural anesthesia is now thought to be the benchmark technique for these patients *(Howell, 1998)*.

Recently, the use of spinal anesthesia in obstetric practice has been increasing. Besides being more cost effective, spinal has some advantages over epidural anesthesia, in particular, its speed and simplicity. Some anesthetists also believe that it produces regional anesthesia more reliably than does epidural anesthesia *(Chiu et al., 2003)*.

Despite these advantages, the role of spinal anesthesia in preeclampsia is far from clear. Even obstetric anesthetists familiar with the spinal technique have reservations about administering spinal anesthesia to preeclamptic women. This is probably due to the common belief that the sudden and extensive sympathetic blockade caused by spinal anesthesia will result in a greater incidence and severity of hypotension in these patients *(Chiu et al., 2003)*.

Because of hazards related to management of the difficult airway and to the hemodynamic consequences of laryngoscopy and tracheal intubation, general anesthesia is usually chosen when regional techniques are contraindicated *(Aya et al., 2003)*.

### **Aim of the work**

The aim of this study is to compare general and spinal anesthesia as regards hemodynamic effects and fetal status in preeclamptic patients undergoing cesarean section.



**REVIEW OF  
LITERATURE**

## PREECLAMPSIA

Hypertension in pregnancy constitutes a major risk factor for maternal mortality as well as fetal wastage and morbidity in the United States and in countries worldwide (*Cunningham and Lindheimer, 1992*). Statistics resulting from the survey of the second National High Blood Pressure Education Program Working Group in High Blood Pressure in Pregnancy indicate that hypertensive disorders in pregnancy are the second leading cause of maternal mortality in the United States, representing almost 15% of pregnancy-related deaths and occurring in from 3% to 10% of pregnancies. This is especially true in underdeveloped nations (*Pridjian et al., 2002*).

Classification of hypertensive disorders in pregnancy has varied in the past and has led to some confusion in both the clinical management and research efforts toward the etiology of these disorders. Presently, a recent classification recommended by the National Institutes of Health (NIH) Working Group on High Blood Pressure in Pregnancy (*Pridjian et al., 2002*) is used in the United States. The categories in this classification, usually separable by careful history, physical examination, and laboratory findings, are: 1) chronic hypertension, which includes preexisting hypertension, both primary (essential) and secondary (for example, in patients with preexistent renal disease), which is often worsened by gestation. 2) preeclampsia-eclampsia, a pregnancy-specific disease characterized by the development of hypertension, edema, proteinuria, and, in eclampsia, seizures during pregnancy. 3) preeclampsia superimposed upon chronic or preexisting hypertension, the category of hypertension in pregnancy in which the most seriously ill women fall, and 4) gestational hypertension, which includes two subgroups. The first, transient hypertension, is hypertension initially diagnosed during pregnancy that does not meet the criteria for preeclampsia, and resolves by 12 weeks' postpartum. Transient hypertension is usually mild and most often occurs in late pregnancy, including immediately postpartum. This form of

hypertension usually does not materially affect the pregnancy or the mother and is not accompanied by the physical or laboratory findings that are demonstrable in preeclampsia or eclampsia. Some of these women, however, may be destined to develop essential hypertension, exclusive of pregnancy, later in life. The second subgroup of gestational hypertension is chronic or preexisting hypertension that is diagnosed if the elevation in blood pressure does not resolve by 12 weeks' postpartum. The term pregnancy-induced hypertension (PIH) that has been used in the past to refer to preeclampsia as well as by some authors for transient hypertension has been abandoned (*Ness and Roberts, 1999*).