CLINICAL STUDY OF SUBCTUANEOUS TISSUE APPROXIMATION IN RELATION TO WOUND DISRUPTION AFTER CAESAREAN DELIVERY IN OBESE WOMEN

THESIS

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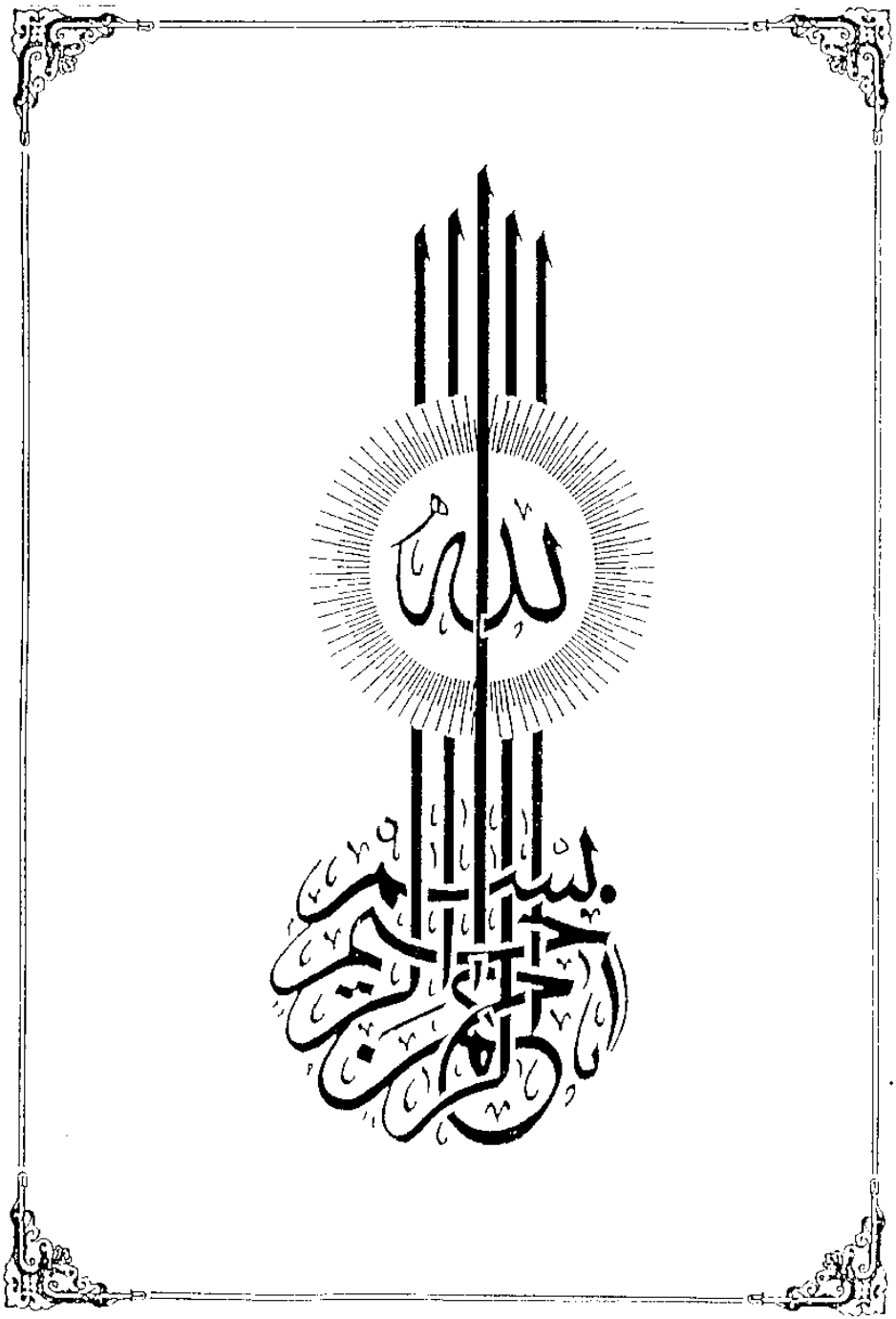

بسم الله الرحمن الرحيم

﴿ وَلَقَدْ خَلَقْنَا الإِنسَانَ مِن سُلالَةٍ مِّن طِينٍ (١٢) ثُمَّ جَعَلْنَاهُ نُطْفَةً فِي قَرَارٍ مَّكِينٍ (١٣) ثُمَّ خَلَقْنَا النُّطْفَةَ عَلَقَةً فَخَلَقْنَا الْعَلَقَةَ مُضْغَةً فَخَلَقْنَا الْمُضْغَةَ عِظَامًا فَكَسَوْنَا الْعِظَامَ لَحْمًا ثُمَّ أَنشَأْنَاهُ خَلْقًا آخَرَ فَتَبَارَكَ اللَّهُ أَحْسَنُ الْخَالِقِينَ (١٤) ﴾

صدق الله العظيم

سورة المؤمنون

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Hossam Abd-El Rahaman Abd El-Aty

CONTENTS

Introduction & Aim of the Work

INTRODUCTION

Caesarean section is delivery of the foetus through incision in the abdominal wall and uterine wall after age of viability *(Cunningham et al., 1989).*

Today the overall caesarean section rate is increased especially in developed countries. USA has reported the largest caesarean birth rate increase all over the world. In recent times, the performance of caesarean section changed from a last minute attempt to safe a child from almost dead mother to safe and planned operation *(Hillan.,1991).*

Disruption of the abdominal incision is a major source of morbidity after caesarean delivery. Infection, seroma, or hematoma formation can disrupt skin closure or necessitate opening the incision for drainage. Infection is the most common cause of wound disruption. The incidence of post caesarean wound infection depends on the population studied, ranging from 2.5-2.9% *(Del Val Go et al., 1992).*

It is important to identify risk factors and treatment that can decrease the incidence of these complications because disruption of the incision will delay recovery and increase hospital costs. Obesity has been identified as a strong independent risk factor for wound complications.

The vascular supply to the subcutaneous fat is relatively poor, so this tissue are susceptible to infection after contamination with pathogenic organisms. Serous fluid may collect in the subcutaneous tissue after surgery, further increasing the risk of infection.

Closure of subcutaneous fat may increase the risk of wound infection because the suture material significantly decreases inoculum of bacteria required to produce clinically significant infection *(Elek et al., 1957).*

Two randomized studies involving general surgery patients failed to show an advantage for subcutaneous closure *(Thomson et al., 1980).*

The effect of suture material on healing and wound infection is probably related to the properties of the suture material and the inflammatory response to the suture. Because the inflammatory response to suture material varies considerably between species extrapolation of animal data to humans may not be valid *(Nichols et al., 1975 and Kurtz et al., 1977).*

Closure of an abdominal incision by approximating only the fascia and skin left a potential space in the subcutaneous tissue which can act as a reservoir for the collection of serous fluid or blood increasing the possibility of a seroma or haematoma, furthermore, these pockets of fluid can easily become

infected during surgery because the uterus is often contaminated with vaginal flora *(Haxton et al., 1974)*.

Therefore, our purpose is to determine whether closure of the subcutaneous fat with subcutaneous drain in obese women decrease the rate of wound disruption after caesarean delivery without increasing the rate of wound infection.

AIM OF THE WORK

The study aims at testing the hypothesis that closure of the subcutaneous fat with subcutaneous drain decreases the incidence of wound disruption after caesarean delivery.