

الآية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال تعالى :

وَقَضَىٰ رَبُّكَ أَلَّا تَعْبُدُوا إِلَّا إِيَّاهُ وَبِالْوَالِدَيْنِ إِحْسَانًا إِمَّا يَبُلُغَنَّ عِنْدَكَ الْكِبَرَ أَحَدُهُمَا أَوْ كِلَاهُمَا فَلَا تَقُلْ لَهُمَا أُفٍّ وَلَا
تَنْهَرُهُمَا وَقُلْ لَهُمَا قَوْلًا كَرِيمًا (٢٣) وَاخْفِضْ لَهُمَا جَنَاحَ الذُّلِّ مِنَ الرَّحْمَةِ وَقُلْ رَبِّ ارْحَمْهُمَا كَمَا رَبَّيَانِي صَغِيرًا (٢٤)

صدق الله العظيم

سورة الإسراء الآيات 23-24

DeDication

This research lovingly dedicated to my respective parents »

*To the gentle man who have been my constant source of
inspiration*

My father

*To the candle who made my project possible by her love, kind
and support*

My dear mother" Najlaa"

To whom who help and always around me

My real friends

To whom who show me the way of success

My teachers

To my life's light

My sisters

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Firstly; my great thanks to my god, I thanks ALLAH for help me in performance of project in this way..

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Lastly; I offer my regards & blessings to all who supported me in any respect during the completion of this project..

Thanks All with my pleasure ;;

Nihad Bakry ..

Abstract

This is a descriptive analytic study which was done during the period from March to June 2014 at Kosti Teaching Hospital - White Nile State. It aimed to estimate Red blood cell count, Haematocrit, Reticulocyte count, and to calculate corrected reticulocytes count (CRC), absolute reticulocytes count (ARC) and reticulocytes production index (RPI) among Sudanese pregnant women. 130 Blood samples were collected; 75 samples of which from pregnant women with no previous abortion, 25 samples of which from pregnant women with history of abortion and 30 samples from non pregnant as control group. Blood was drawn in EDTA anticoagulant treated containers. The count of Red Blood Cell and Haematocrit were performed by using hematological analyser. The reticulocyte count was manually determined using microscope. Data were analyzed by using Statistical Package of Social Science "SPSS" computer program and compared with control group.

The result showed that:

PCV of pregnant women was 0.35 L/L, compared to 0.27 L/L of control AND 0.34L/L of previous abortion.

RBC's count of pregnant women was 4.3×10^6 c/ μ l, compared to 3.1×10^6 c/ μ l of control and 4.0×10^6 c/ μ l of previous abortion.

Reticulocyte of pregnant women was 1.3%, compared to 0.5% of control, and 2.1% of previous abortion.

CRC of pregnant women was 1.0%, compared to 0.2% of control and 1.7% of previous abortion.

RPI of pregnant women was 0.8, compared to 0.3 of control and 1.2 of previous abortion.

Conclusion: the results suggested that Reticulocyte count and RPI are elevated by pregnancy and abortion.

خلاصة البحث

هذه الدراسة تحليلية وصفية أجريت في الفترة ما بين (مارس- يونيو 2014) في مستشفى كوستي التعليمي بولاية النيل الأبيض لعدّ خلايا الدم الحمراء (RBC's)، قياس الخلايا المكدّسة (PCV) وعدّ الخلايا الشبكية (Retics) ولحساب تصحيح الخلايا الشبكية (CRC) ومؤشرها (RPI)؛ أجريت الدراسة في السيدات الحوامل السودانيات. جُمعت 13 عينة دم؛ 75 عينة من السيدات الحوامل، 25 عينة من السيدات الحوامل اللاتي تعرضن لإجهاض و30 عينة من غير الحوامل كعينة ضابطة. أُخذت العينات في EDTA كمادة مانعة للتجلط لعدّ خلايا الدم الحمراء وقياس الخلايا المكدّسة باستخدام جهاز آلي لعدّ الخلايا، ولعدّ الخلايا الشبكية بعد صبغها باستخدام المجهر الضوئي جُمعت وحُدّلت البيانات باستخدام برنامج الحزم الإحصائية للعلوم الإجتماعية؛ فكانت النتائج كالآتي:

مقياس الخلايا المكدّسة لدى السيدات الحوامل = 0.35 ل/ل ، بينما متوسط مقياس الخلايا المكدّسة لدى السيدات غير الحوامل = 0.27 ل/ل ، مقارنة ب 0.34 ل/ل بعد الإجهاض.

عدد الخلايا الحمراء لدى السيدات الحوامل = 4.3×10^6 خلية في كل ميكروليتر، بينما متوسط عدد الخلايا الحمراء لدى السيدات غير الحوامل = 3.1×10^6 خلية في كل ميكروليتر، مقارنة ب 4.0×10^6 خلية في كل ميكروليتر بعد الإجهاض.

عدد الخلايا الشبكية لدى السيدات الحوامل = 1.3% ، بينما متوسط عدد الخلايا الشبكية لدى السيدات غير الحوامل = 0.5% ، مقارنة ب 2.1% بعد الإجهاض.

عدد الخلايا الشبكية بعد تصحيحها لدى الحوامل = 1.0% ، بينما متوسط عدد الخلايا الشبكية بعد تصحيحها لدى غير الحوامل = 0.2% ، مقارنة ب 1.7% بعد الإجهاض.

مؤشر إنتاج الخلايا الشبكية لدى الحوامل = 0.8 ، بينما متوسط مؤشر إنتاج الخلايا الشبكية لدى غير الحوامل = 0.3 ، مقارنة ب 1.2 بعد الإجهاض.

هذه الدراسة أوضحت أنّ الحمل يؤثر على تصنيع خلايا الدم الحمراء وإنتاجها بواسطة نخاع العظام.

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Abbreviations

AGM	Aorto Gonad Mesonephros
ALC	Absolute Lymphocyte Count
ANC	Absolute Neutrophil Count
ARC	Absolute reticulocyte Count
ATP	Adenosine Tri Phosphate
BUN	Blood Urea Nitrogen

CBC	Complete Blood Count
CRC	Corrected Reticulocyte Count
DNA	Deoxyribo Nucleic Acid
DPG	Di Phospho Glycerate
EPO	Erythropoietin
GFR	Glomerular Filtration Rate
Hb	Hemoglobin
HCG	Human Chorionic Gonadotropin
Hct	Hematocrit
HiCN	Cyanomethemoglobin
HPL	Human Placental Lactogen
HSC	Hemopoietic Stem Cell
Ig	Immunoglobulin
LCD	Liquid Crystal Displayer
MBP	Major Basic Protein
MCH	Massive Cell Hemoglobin
MCV	Massive Cell Volume
NK cell	Natural Killer cell
PCV	Packed Cells Volume
PMN	Poly Morph Neuclear
RBC	Red Blood Cell
RE	Reticulo Endothelium
RNA	Ribo Nucleic Acid
RPI	Reticulocyte Production Index
TPO	Thrombopoietin

TSC	Tri Sodium Citrate
WBC	White Blood Cell