



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



MONA MAGHRABY



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شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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Randomized Clinical Trial to Evaluate the Efficacy of Tranexamic Acid in Irrigant Solution on Blood Loss in Transurethral Resection of the Prostate

Thesis

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Urology

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

لَسْبَدَانِكَ لَا عِلْمَ لَنَا
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

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List of Contents

Title	Page No.
List of Tables	i
List of Figures	iii
List of Abbreviations.....	v
Introduction.....	1
Aim of the Work.....	3
Review of Literature	
☞ Benign Prostatic Hyperplasia (B.P.H)	4
☞ Tranexamic Acid	48
Patients and Methods	56
Results.....	62
Discussion.....	87
Summary	98
Conclusion	101
References	102
Arabic Summary.....	١

List of Tables

Table No.	Title	Page No.
Table (1):	Evaluation of age, medical history and surgical history in all 50 patients.....	62
Table (2):	Comparison between the two study groups regarding basic demographic and clinical characteristics:.....	63
Table (3):	Comparison between the two study groups regarding pre operative labs (CBC, Coagulation profile, Renal functions, IPSS):.....	64
Table (4):	Comparison in non tranexamic acid group regarding the CBC values (Hemoglobin concentration, Hematocrite, total leucocytic count, platelets).....	65
Table (5):	Analysis of the changes in (Coagulation profile, Renal functions, IPSS) in the non tranexamic acid group at pre operative and post operative	67
Table (6):	Comparison in tranexamic acid group regarding the CBC values (Hemoglobin concentration, Hematocrite, total leucocytic count, platelets), in pre operative time, 4hrs post operative time, 24hrs post operative time).....	68
Table (7):	Analysis of the changes in (Coagulation profile, Renal functions, IPSS) in the tranexamic acid group at pre operative and post operative	70
Table (8):	Comparison between the two study groups regarding CBC at 4hrs post operative (HGB, HCT, TLC, PLT).....	71
Table (9):	Comparison between the two study groups regarding CBC at 24hrs post operative, post operative (Coagulation profile, Renal functions, IPSS).....	73
Table (10):	Comparison between the two study groups regarding pre operative (Urine analysis, PSA (Total, Free), pelvi-abd U/S (pre and post), also DRE):.....	75
Table (11):	Comparison between the two study groups regarding the Irrigation Volume (dL) in three times (T1: immediately after surgery, T2: 4hrs post operative, T3: 24 hrs post operative).	76

List of Tables (Cont...)

Table No.	Title	Page No.
Table (12):	Comparison between the two study groups regarding Hemoglobin concentration in fluid (g/dL) in three times (T1: immediately after surgery, T2: 4hrs post operative, T3: 24 hrs post operative).....	78
Table (13):	Comparison between the two study groups regarding Blood loss (ml) in three times (T1: immediately after surgery, T2: 4hrs post operative, T3: 24 hrs post operative).....	80
Table (14):	Comparison in the non tranexamic group regarding (Irrigation Volume (dL), Hemoglobin concentration in fluid (g/dL), and Blood loss (ml) in the three times (T1: immediately after surgery, T2: 4hrs post operative, T3: 24 hrs post operative).....	82
Table (15):	Comparison in the tranexamic group regarding (Irrigation Volume (dL), Hemoglobin conc in fluid (g/dL), and Blood loss (ml) in the three times. (T1: immediately after surgery, T2: 4hrs post operative, T3: 24 hrs post operative).....	83
Table (16):	Collection of all difference values between two groups.....	84
Table (17):	Comparison between two groups regarding (Complications, Surgery duration, Hospital Stay (days), Quality of endoscopic view).....	86

List of Figures

Fig. No.	Title	Page No.
Figure (1):	Prostate Zones	7
Figure (2):	1 =Peripheral Zone, 2= Central Zone, 3= Transitional Zone, 4= Anterior Zone	7
Figure (3):	(a) Internal anatomy of normal prostate. (b) Internal anatomy of benign prostatic hyperplasia	8
Figure (4):	Bipolar resection	25
Figure (5):	Gyrus PlasmaKinetic system Median lobe vaporization Loop bipolar resection.....	26
Figure (6):	Extension of the incisions at 5 and 7 o'clock to the prostatic urethra on both sides of the verumontanum by Collings loop.....	26
Figure (7):	Laser Vaporization of the prostate	30
Figure (8):	Treatment algorithm for BPH	33
Figure (9):	Resection of the median lobe from the bladder neck until above the verumontanum	39
Figure (10):	Final aspect of the prostatic lodge after TURP.....	39
Figure (11):	Antifibrinolytic action of tranexamic acid.....	49
Figure (12):	Summarizing (pre- and 4hrs post operative time, 24hrs post operative time) hemoglobin concentration (gm/dL) in non tranexamic group.....	66
Figure (13):	Summarizing (pre- and 4hrs post operative time, 24hrs post operative time) hematocrit percentage in the non tranexamic group.....	66
Figure (14):	Summarizing (pre- and 4hrs post operative time, 24hrs post operative time) hemoglobin concentration (gm/dL) in tranexamic group.	69
Figure (15):	Summarizing (pre- and 4hrs post operative time, 24hrs post operative time) hematocrit percentage in the tranexamic group.....	69
Figure (16):	Summarizing the statistical significant difference between two groups regarding (HGB) at 4hrs post operative	72

List of Figures (Cont...)

Fig. No.	Title	Page No.
Figure (17):	Summarizing the statistical significant difference between two groups regarding (HCT) at 4hrs post operative.	72
Figure (18):	Summarizing the statistical significant difference between two groups regarding (HGB) at 24hrs post operative	74
Figure (19):	Summarizing the statistical significant difference between two groups regarding (HCT) at 24hrs post operative	74
Figure (20):	Summarizing the statistical significant difference between two groups regarding (Irrigation Volume (dL) in three times (T1 and T2 and T3).	77
Figure (21):	Summarizing the significant difference between two groups regarding total irrigation volume.	77
Figure (22):	Summarizing the statistical significant difference between two groups regarding (Hemoglobin concentration in fluid (g/dL) in (T1: time of surgery, T2: 4hrs post operative), and non significant difference in T3.....	79
Figure (23):	Summarizing the significant difference between two groups regarding total hemoglobin concentration in irrigation fluid.....	79
Figure (24):	Summarizing the statistical significant difference between two groups regarding (Blood loss (ml)) in three times (T1: immediately after surgery, T2: 4hrs post operative, T3: 24 hrs post operative).....	81
Figure (25):	Summarizing the statistical significant difference between two groups regarding the total Blood loss.	81
Figure (26):	Summarizing the statistical significant difference between two groups regarding (HGB g/dl) drop.	85
Figure (27):	Summarizing the statistical significant difference between two groups regarding (HCT %) drop.	85

List of Abbreviations

Abb.	Full term
<i>BNE:</i>	<i>Bladder Neck Elevation</i>
<i>BOO:</i>	<i>Bladder outlet obstruction</i>
<i>BPH :</i>	<i>Benign prostatic Hyperplasia</i>
<i>CABG:</i>	<i>Coronary Artery Bypass Graft</i>
<i>CBC:</i>	<i>Complete Blood Picture</i>
<i>CIC:</i>	<i>Coagulation Intermittent Cutting</i>
<i>CR:</i>	<i>Creatinine</i>
<i>CRASH2:</i>	<i>Clinical Randomization of antifibrinolytic insignificant head injury 2</i>
<i>DHT:</i>	<i>Di Hydro Testosterone</i>
<i>DJ:</i>	<i>Double J stent</i>
<i>DM:</i>	<i>Diabetes mellitus</i>
<i>DO:</i>	<i>Detrusor over activity</i>
<i>DRE:</i>	<i>Digital Rectal Examination</i>
<i>DVT:</i>	<i>Deep Venous Thrombosis</i>
<i>ED:</i>	<i>Erectile dysfunction</i>
<i>ER:YAG:</i>	<i>Erbium Yttrium-Aluminum-Garnet crystal laser</i>
<i>HCT:</i>	<i>Hematocrit</i>
<i>HCV:</i>	<i>Hepatitis C virus</i>
<i>HGB:</i>	<i>Hemoglobin</i>
<i>HIFU:</i>	<i>High intensity focal ultra sound</i>
<i>HMB:</i>	<i>Heavy Menstrual Bleeding</i>
<i>HO:YAG:</i>	<i>Holmium Yttrium-Aluminum-Garnet Laser</i>
<i>HOLAP:</i>	<i>Holmium laser ablation of prostate</i>
<i>HOLEP:</i>	<i>Holmium laser enucleation of prostate</i>
<i>HOLRP:</i>	<i>Holmium laser resection of prostate</i>
<i>HPS laser:</i>	<i>High Performance system laser</i>
<i>HTN:</i>	<i>Hypertension</i>

List of Abbreviations (Cont...)

Abb.	Full term
<i>INR:</i>	<i>International normalized ratio</i>
<i>IPSS:</i>	<i>International prostate symptoms score</i>
<i>K:</i>	<i>Potassium</i>
<i>KTP:</i>	<i>Potassium Titanyl Phosphate, Green light laser</i>
<i>LBO:</i>	<i>Lithium tri borate crystals laser</i>
<i>LUTS:</i>	<i>Lower Urinary Tract Symptoms</i>
<i>NA:</i>	<i>Sodium</i>
<i>ND:YAG:</i>	<i>Neodymium-doped Yttrium Aluminum Garnet crystal laser</i>
<i>NSAID:</i>	<i>Non Steroidal Anti Inflammatory Drug</i>
<i>PDE5:</i>	<i>Phosphodiesterase TYPE 5</i>
<i>PDE5I:</i>	<i>Phosphor di esterase type 5 inhibitor</i>
<i>PE:</i>	<i>Pulmonary Embolism</i>
<i>PKI:</i>	<i>Predictive drug kinase inhibitor</i>
<i>PLT:</i>	<i>Platelet</i>
<i>PSA:</i>	<i>Prostatic specific antigen</i>
<i>Pt:</i>	<i>Prothrombine time</i>
<i>Ptt:</i>	<i>Partial thrombin time</i>
<i>PVP:</i>	<i>Photo selective laser vaporization of prostate</i>
<i>PVR:</i>	<i>Post voiding residual volume</i>
<i>Q max:</i>	<i>Maximum flow rate</i>
<i>QOL:</i>	<i>Quality of life</i>
<i>RBCS:</i>	<i>Red Blood Cells</i>
<i>RF:</i>	<i>Radio frequency current</i>
<i>SD:</i>	<i>Standard Deviation</i>
<i>SIG:</i>	<i>Significant</i>
<i>T1:</i>	<i>Time immediately after surgery</i>
<i>T2:</i>	<i>Time 4 Hrs after surgery</i>
<i>T3:</i>	<i>Time 24 hrs after surgery</i>

List of Abbreviations (Cont...)

Abb.	Full term
<i>THA:</i>	<i>Total Hip Arthroplasty</i>
<i>TLC:</i>	<i>Total Leukocyte Count</i>
<i>TPV:</i>	<i>Total prostatic volume</i>
<i>TRUS:</i>	<i>Trans urethral ultra sound</i>
<i>TUIP:</i>	<i>Trans urethral incision of prostate</i>
<i>TUMT:</i>	<i>Trans urethral microwave thermotherapy</i>
<i>TUNA:</i>	<i>Trans urethral needle ablation</i>
<i>TUR:</i>	<i>Trans urethral Resection</i>
<i>TURP:</i>	<i>Trans urethral resction of prostate</i>
<i>TXA :</i>	<i>Tranexamic Acid</i>
<i>US:</i>	<i>United States</i>
<i>UTI:</i>	<i>Urinary Tract Infections</i>
<i>VLAP:</i>	<i>Visual laser aplation of prostate</i>

INTRODUCTION

BPH is a nonmalignant enlargement of the prostate gland caused by cellular hyperplasia of the glandular and stromal elements. BPH leads to troublesome lower urinary tract symptoms in some men. Transurethral resection of prostate (TURP) is one of the most common and well-developed technologies used to treat BPH. It is recognized as the gold standard for surgical BPH treatments.⁽¹⁾

Prostate tissues contain large venous sinuses which may cause some complications such as bleeding, TURP syndrome. Hemorrhage is the most common complication of this type of surgery.⁽¹⁾

Tranexamic acid is a synthetic derivative of amino acid lysine and has strong affinity for lysine binding site of plasminogen. It inhibits the conversion of plasminogen to plasmin which is required for fibrinolysis.⁽²⁾

The intravenous route and the local administration of tranexamic acid, both have reduced blood loss effectively in some surgeries such as cardiac surgery, oral surgery, dental surgery, knee arthroplasty and endoscopic sinus surgery.⁽²⁾

The topical use of Antifibrinolytic agents such as tranexamic acid (TXA) demonstrates benefits without any significant risk, systemic absorption and thromboembolic disorders.