

Role of intra articular injection of autologous platelet-rich plasma in primary knee osteoarthritis

Thesis

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By

Ahmed Ibrahim Kamal Eddin Afifi Hammad

*M.B.B CH, M.Sc. Of physical medicine
Faculty of medicine- Ain Shams University*

Under Supervision of

Prof. Dr/ Nadia Abdel Salam El kadery

*Professor of Physical medicine, Rheumatology and Rehabilitation
Faculty of medicine- Ain Shams University*

Prof. Dr/ Mohammed Aly Elwy

*Professor of Physical medicine, Rheumatology and Rehabilitation
Faculty of medicine- Ain Shams University*

Prof. Dr / Eman Mahmoud Ghaniema

*Professor of Physical medicine, Rheumatology and Rehabilitation
Faculty of medicine- Ain Shams University*

Dr/Hossam Moussa Sakr

*Assistant professor of Radiodiagnosis
Faculty of medicine- Ain Shams University*

*Faculty of medicine
Ain Shams University*

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List of abbreviations

ACD-A: Anticoagulation citrate dextrose-A.

ACL: Anterior cruciate ligament.

ACR: The American College of Rheumatology.

ACS: autologous conditioned serum.

ADAMTS: A Disintegrin And Metalloprotease with Thrombospondin motifs.

ADP: Adenosine diphosphate.

AGEs: Advanced glycation end products.

ATP: Adenosine triphosphate.

ahMSC: adult human mesenchymal stem cells.

BM-MSC: bone marrow-derived mesenchymal stem cells.

BMPs: Bone morphogenetic proteins.

CAS: computer navigated surgery.

COX-2: Cyclo-oxygenase-2.

CR: Conventional radiography.

CRP: C-reactive protein.

CT: Computed tomography.

CTGF: Connective tissue growth factor.

dGEMRIC: Delayed gadolinium enhanced MRI of cartilage.

DVT: Deep venous thrombosis.

ECM: Extracellular matrix.

EGF: Epidermal growth factor.

EP: prostaglandin E receptor.

ERKs: Extracellular signal-regulated kinases.

ESR: Erythrocyte sedimentation rate.

EULAR: European League Against Rheumatism.

FDA: Food and Drug Administration.

FGF: Fibroblast growth factor.

FGFR1: FGF receptor 1.

FGFR3: fibroblast growth factor receptor 3.

FN: Fibronectin.

Fn-fs: Fibronectin fragments.

GAG: Glucosaminoglycan.

GI: gastrointestinal.

GM-CSF: Granulocyte-macrophage colony-stimulating factor.

HA: Hyaluronic acid.

IA: intra-articular.

IGF-1: Insulin like growth factor.

IGFBPs: IGF-binding proteins.

IFN: Interferon.

IKDC: International Knee Documentation Committee.

IL: Interleukin.

IL1-Ra: IL-1receptor antagonists.

IRAPs: IL-1receptor antagonist proteins.

iNOS: inducible nitric oxide synthase.

JNK: c-Jun N-terminal kinases.

JSN: joint space narrowing

JSW: Joint space width.

KD: Kilodaltons.

KOOS: Knee osteoarthritis outcome score.

KSCRS: Knee society clinical rating scale.

LIF: Leukemia inhibitory factor.

LTB4: Leukotriene B4.

MAP: Mitogen activated protein.

MIS: minimally invasive surgery.

MMPs: Matrix metalloproteinases.

MRI: Magnetic Resonance Imaging.

MSCs: Mesenchymal stem cells.

MSK US=MSUS: Musculoskeletal ultrasonography.

NF κ B: Nuclear factor kappa B.

NGF: Nerve growth factor.

NO: Nitric oxide.

NSAIDs: Non-Steroidal Anti Inflammatory Drugs.

OARSI: Osteoarthritis Research Society International.

OATS: osteochondral autologous transfer system.

Ob: obesity gene.

OMERACT: Outcome Measures in Rheumatology.

OP-1: Osteogenic protein-1.

OPG: Osteoprotegerin.

OSM: Oncostatin M.

PDGF: Platelet derived growth factor.

PGE2: Prostaglandin E2.

PGs: Proteoglycans.

PGF: Platelet growth factor.

PR-FG: platelet-rich fibrin glue.

PRP: Platelet-rich plasma.

RAGE: Receptor of advanced glycation end products.

RANK: Receptor activator of nuclear factor kappa B.

RANKL: RANK ligand.

RCT: Randomized Controlled Trial.

RNA: Ribonucleic acid.

SB: Subchondral bone.

SF-36: Short Form Health Survey.

Smad: a family of proteins similar to the gene products of the *Drosophila* gene 'mothers against decapentaplegic' (Mad) and the *Caenorhabditis elegans* gene Sma. They are intracellular proteins that transduce extracellular signals from TGF- β ligands to the nucleus where they activate downstream gene transcription

SWD: Short Wave Diathermy.

SySADOA: Symptomatic slow-acting drugs for osteoarthritis.

TENS: Transcutaneous electrical nerve stimulation.

TGF β : Transforming growth factor β .

TIMP: Tissue inhibitors of metalloproteinase.

TKA: Total Knee Arthroplasty.

TKR: Total knee replacement (introduction)

TKR: Tyrosine kinase receptor.

TNF- α : Tumor necrosis factor- α .

TNF-R: TNF receptor.

Toll like receptors: are classes of proteins that play a key role in the innate immune system. They are single, membrane-spanning, non-catalytic receptors usually

expressed in sentinel cells such as macrophages and dendritic cells, that recognize structurally conserved molecules derived from microbes

TRAP (SFLLRN): Thrombin Receptor Activating Peptide

QOL: Quality Of Life.

UKA: Uni-compartmental Knee Arthroplasty.

uPA: urokinase-type plasminogen activator.

US: Ultrasound.

VAS: Visual analogue scale.

VEGF: Vascular endothelial growth factor.

WOMAC: Western Ontario and McMaster Osteoarthritis Index.

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