EVERYTHING YOU NEED TO KNOW ABOUT PLATELET RICH PLASMA THERAPY (PRP)

Step by-Step Guide

BestLife™ MED SPAS

www.BestLifeMedSpas.com

FIRST CHAPTER

Introduction

This review takes a look at the latest research on the use of platelet-rich plasma (PRP), in order for you to make an informed decision for various problems such as sprains, strains, tears and arthritis.

Recent Findings

Abundant evidence supports the use of PRP injection for lateral epicondylitis (Commonly referred to as Tennis Elbow) and PRP for osteoarthritis of the knee. Even more evidence supports the use of PRP injections for patellar tendinopathy (also known as sprinter's/jumper's knee) and of PRP injection for plantar fasciitis (connective tissue which supports the arch of the foot). There is also abundant evidence to recommend PRP for rotator cuff, osteoarthritis of the hip, or high ankle sprains. Unfortunately, at this time we do not have evidence that PRP works for Achilles tendinopathy, muscle injuries, acute fractures or ACL reconstruction.

Introduction

In recent years, doctors have learned that the body has the ability to heal itself. Platelet-rich plasma therapy is a form of regenerative medicine that can harness those abilities and greatly increase the natural growth factors your body uses to heal tissue.

SECOND CHAPTER

WHAT IS PLATLETS AND WHAT IS PLASMA?

Plasma is the liquid portion of whole blood. It is composed largely of water and proteins, and it provides a medium for red blood cells, white blood cells and platelets to circulate through the body. Platelets, also called thrombocytes, are blood cells that cause blood clots and other necessary growth healing functions.

Platelet activation plays a key role in the body's natural healing process.

What is platelet-rich plasma (PRP) and what are PRP injections?

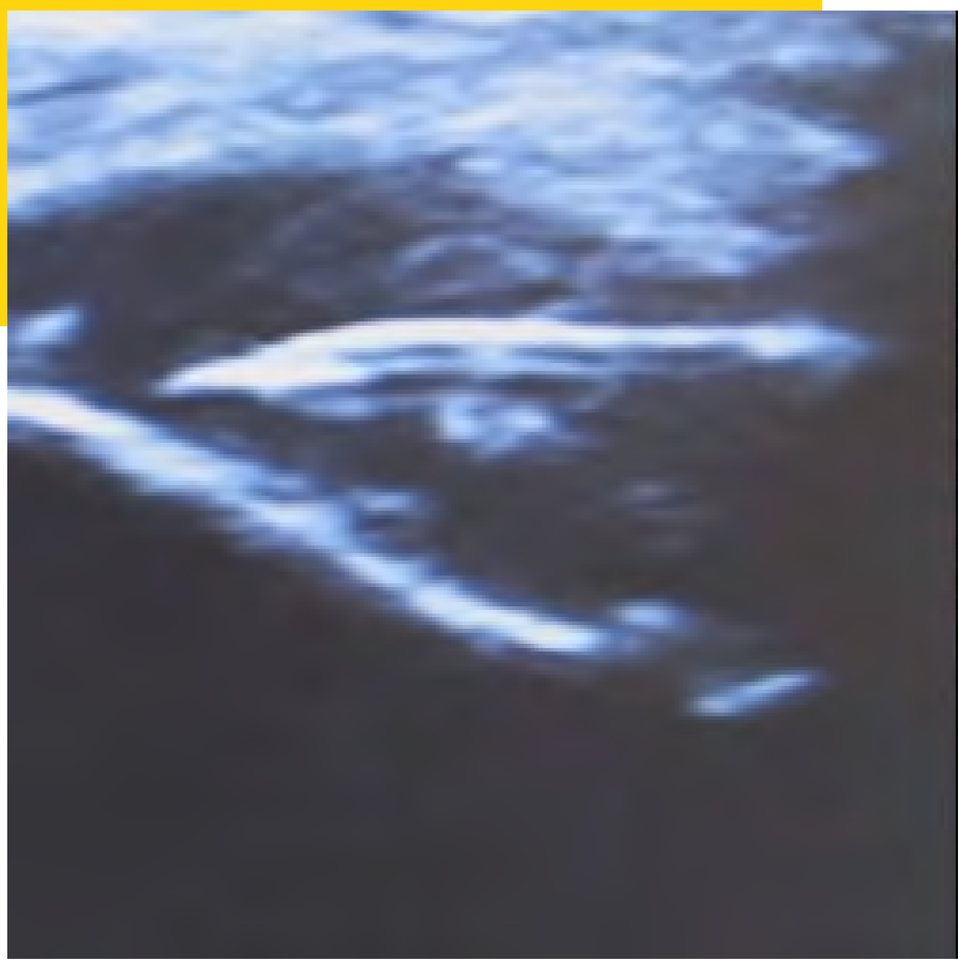
Platelet-rich plasma (PRP) therapy uses injections of a concentration of a patient’s own platelets to accelerate the healing of injured tendons, ligaments, muscles and joints. In this way, PRP injections use each individual patient's own healing system to improve musculoskeletal problems. PRP injections are prepared by taking anywhere from one to a few tubes of your own blood and working to enrich and concentrate the platelets. These activated platelets are then injected directly into your injured or diseased body tissue. This releases growth factors that stimulate and increase the number of reparative cells your body produces.

Preparation and Composition

Currently Doctors do not agree on the optimal PRP preparation with respect to concentration of blood components and there are currently many different variations in the PRP methods and preparation characteristics depending on who and where the procedures are performed.

At BestLife Clinics we believe in the use of 'best-practices' methods; those methods that have consistently received the greatest results across the entire industry. Therefore, we use your own whole blood which is then mixed with an anticoagulant factor, prior to centrifugation, which separates red blood cells (RBCs) from platelet-poor plasma (PPP) and the "buffy coat," which contains the concentrated platelets and leukocytes. The platelets are isolated using various methods and can then be directly injected into the patient or be "activated" via the addition of either calcium chloride or thrombin, which then causes the platelets to degranulate and release the growth factors. Our doctors will evaluate you to determine which method they expect will create the greatest results.

Ultrasound imaging is sometimes used to guide the injection. The photographs below illustrate a PRP injection into a patient's torn tendon. The ultrasound guidance is shown at left and the injection is shown at right.



Our current understanding is that Platelet-rich plasma significantly enhances the healing process, and using a PRP injection for shoulder pain caused by rotator cuff tears, for Achilles tendon ruptures and for other soft-tissue injuries is becoming more common. PRP has also been demonstrated to improve function and reduce pain in people who have tendonitis or chronic tendinosis conditions such as tennis elbow or golfer's elbow.

Some of the key advantages of PRP injections are that they can reduce the need for anti-inflammatories or stronger medications like opioids. In addition, the side effects of PRP injections are very limited because, since the injections are created from your own blood, your body will not reject or react negatively to them.

Continue to read below for the areas in which BestLife and their medical staff specialize and have seen the greatest results, or areas where we do not believe that PRP is effective and would therefore recommend alternative treatments.

Treatment of Tendon Injuries

The treatment of tendon injuries or tendinopathies with PRP has been the subject of several studies.Many of the cytokines found in PRP are involved in the signaling pathways that occur during healing stages of inflammation, cellular proliferation, and subsequent tissue remodeling.PRP may also promote neovascularization, which may increase the blood supply and nutrients needed for cells to regenerate the injured tissue as well as bring new cells and remove debris from damaged tissue.PRP is thus highly recommended as a surgical alternative to tendon injuries, especially tears.

Lateral Epicondylitis – Tennis Elbow

PRP has been evaluated as a potential treatment option for patients with lateral epicondylitis, who have failed to respond to physical therapy.In the largest such study, 230 patients who failed to respond to at least 3 months of physical therapy were given PRP injections and saw a significant improvement in pain compared to control as well as a significantly lower percentage of patients reporting residual elbow tenderness.

Previous studies have suggested that PRP may also provide longer continuous relief of symptoms for lateral epicondylitis than corticosteroid injection and therefore have a more sustainable treatment effect.PRP appears to be an effective treatment for lateral epicondylitis with significant evidence demonstrating short-term and long-term effectiveness.

Patellar Tendinopathy – Jumper's/Runner's Knee

The use of PRP to treat patellar tendinopathy has been supported by several studies.Patients were selected to receive PRP and followed for 26 weeks.The group treated with PRP had significant improvement in symptoms, also reported the benefit of PRP injections for treatment of patellar tendinopathy.While there was no significant difference between groups at 2-month follow-up, the PRP group showed statistically significant improvement, at 12-month follow-up. PRP appears to be a viable treatment option for chronic patellar tendinopathy.

Achilles Tendinopathy

Several historical trials failed to show a difference in PRP to treat Achilles tendonitis.Currently the use of PRP in Achilles tendinopathy is not supported by current research.

Rotator Cuff Tendinopathy

There has been a paucity of high-level studies looking into PRP injections in the nonsurgical management of rotator cuff tendinopathy.A trial found that there was an improvement in pain with two injections of PRP, separated 4 weeks apart.Patients reported comparable improvements between subacromial PRP and corticosteroid injections in Shoulder Pain Disability and VAS shoulder pain.

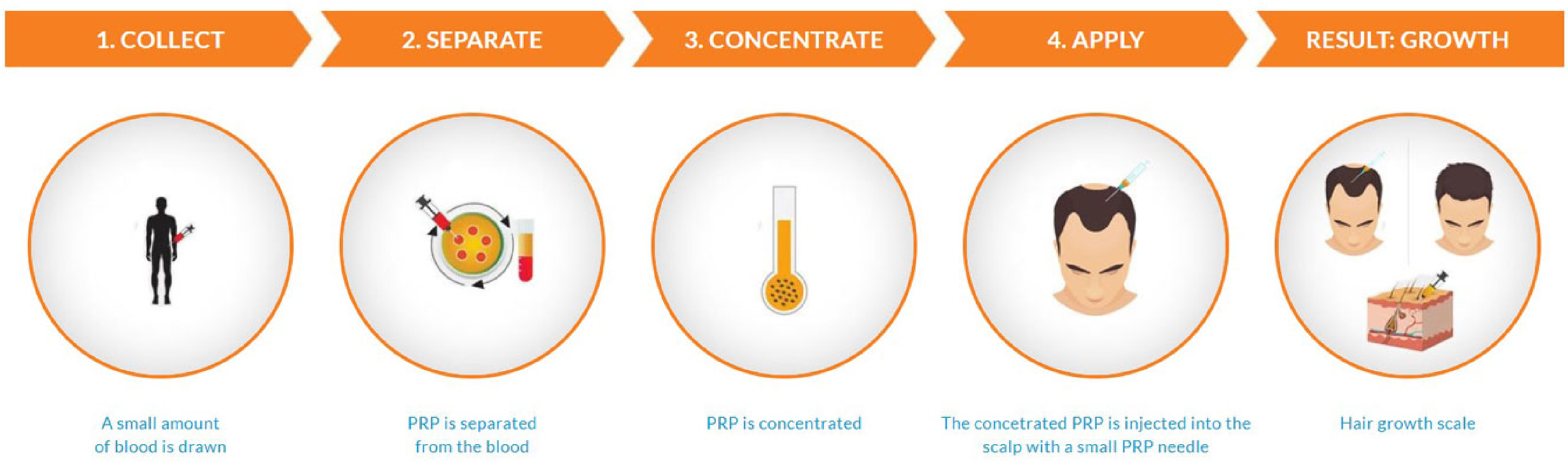
Several studies to date have shown drastic improvement in patient-reported outcomes from injections of PRP for rotator cuff tendinopathy.These PRP injections have been shown to be safe and are considered an alternative for corticosteroid injections in rotator cuff healing.

Plantar Fasciitis

Several trials have evaluated PRP injection in the management of chronic plantar fasciitis.The potential of PRP as a treatment relaxes concerns associated with injection of corticosteroid, such as atrophy or plantar fascia rupture.PRP injections appear to be an effective treatment for improving pain and function in chronic plantar fasciitis and may be superior to corticosteroids, especially considering the improved safety profile of PRP.

CHAPTER THREE

SURGICAL AUGMENTATION



Rotator Cuff Repair

Several significant clinical studies have evaluated the use of PRP products as augments in repair of rotator cuff tears. Many of the studies specifically looked at the use of PRP directly into the repair site. The majority of studies have shown little difference in the outcomes for PRP as an augment in arthroscopic rotator cuff repair compared to repair alone.

Multiple clinical trials and large studies demonstrate little evidence for the use of PRP in rotator cuff repair due to tears or post-surgery.

Achilles Tendon Repair

Preclinical studies have shown promising effects of PRP to augment healing in Achilles tendon ruptures. Injection of PRP does not appear to be beneficial as a surgical augmentation for acute Achilles tendon repair, although more high-quality clinical trials are warranted.

Multiple clinical trials and large studies demonstrate little evidence for the use of PRP in Achilles tendon repair due to tears or post-surgery.

Osteoarthritis

Osteoarthritis (OA) has unique characteristics with respect to joint biology contributing to patient symptoms. Reports on the use of PRP for cartilage injury have primarily involved patients with osteoarthritis of the knee or hip..

Osteoarthritis of the Knee

There has been increased interest in the use of PRP injections for nonsurgical management of osteoarthritis of the knee comparing PRP to various other treatments like placebo, hyaluronic acid (HA), corticosteroid injections, oral medications, and homeopathic treatments. Evidence shows PRP to be more effective in patients with mild to moderate OA suggesting that intra-articular PRP injections are more efficacious in the treatment of knee OA, in terms of pain relief and patient-reported outcomes, than other alternative injections.

Intra-articular injection of LP-PRP is a safe treatment and there is level 1 evidence demonstrating its ability to reduce pain symptoms and increase function in patients diagnosed with osteoarthritis of the knee.

Osteoarthritis of the Hip

There have only been four clinical trials using PRP injections for the treatment of hip OA. One study found significant improvement at the 1-, 3-, 6-, and 12-month marks. Peak improvement was seen at the 3-month mark with diminishing effect thereafter. Pain at the 12-month mark remained significantly improved from initial assessments.

None of the studies showed an adverse effect from PRP injections into the hip and all concluded that PRP was safe.

Although the data is limited, injection of PRP for osteoarthritis of the hip has shown to be safe and has some effectiveness in pain reduction and improved function as measured by patient-reported outcomes. Multiple studies have shown PRP to initially have better pain reduction when compared to other treatments.

Ankle Sprains

Only two randomized clinical trials have evaluated the use of PRP in the setting of acute ankle sprains.

PRP does not appear to be useful in the setting of acute ankle sprains. While limited evidence suggests PRP injections may be helpful in high ankle sprains in elite athletes, the lack of evidence leads us to conclude that PRP injections cannot be routinely recommended for high ankle sprains.

Muscle Injuries

The use of PRP in the treatment of muscle injuries has shown perhaps the greatest area of promise. A study of 28 patients with extreme hamstring muscle injuries comparing an injection of PRP with a rehabilitation program versus rehabilitation alone. The group treated with PRP was able to return to play faster. Another study evaluated 80 patients comparing PRP injections to placebo saline injections, with all patients receiving standard rehabilitation. The patients were followed for 6 months and there were significant differences in return to play time or with re-injury rate. The ideal formulation of PRP however, to improve muscle healing in a clinically relevant way continues to remain elusive and will be considered by our medical staff as your body continues to repair itself.

Conclusion and Summary of Recommendations

Platelet-rich plasma (PRP) works by delivering a highly-concentrated amount of growth factors and cytokines contained within platelets. In musculoskeletal medicine, PRP is a promising treatment with clear evidence of safety. However, who effective it is depends on the specific area(s) to be treated.

Based on the current best available literature, the following recommendations are summarized:

PRP injections are used for a range of conditions,* from musculoskeletal pain and injuries to cosmetic procedures.

Tendon, Ligament, Muscle and Joint Injuries

Post-surgical Healing

Osteoarthritis

Hair Loss

Skin Rejuvenation

Non-Surgical Breast Augmentation

Erectile Disfunction

Accelerated Dental Implant Healing

So Much More!!!!

CHAPTER FOUR

The BestLife Difference

Modern science offers us tremendous advantages never before realized in medical care. It is equally important to understand the power coming from thousands of years of medical knowledge that lies within traditional cultural medicines. It is our firm belief that each of these methodologies are a piece to a larger whole. Each being likened to a chapter in the "big book of human care."

Dr. Garner has worked in urgent cares and family practice for many years and has worked with people with joint and spine issues since becoming a NP in 2005. In 2021 she became certified in stem cell injections and began traveling throughout the United States injecting cells into people with degenerated discs in the spine, injured worn out knees, torn rotator cuffs, wrists, ankles, and feet for neuropathy. Knowing that research shows alpha lipoic has shown to reduce neuropathy pain in patients combining stem cell treatments and IV alpha lipoic acid help treat the cause of the condition and begin repairing the nerves.

Dr. Garner specializes in the following PRP treatments:

· Hair Loss

· Antiaging

· Erectile Dysfunction

· Sports Injuries

· Muscle Tears

· Tendon Injuries

· Acute Injuries

· Post-Surgical Repair

· Rotator Cuff Injuries

· Osteoarthritis

· Knee Injuries

In addition to our team, we use the highest quality Stem Cell products available. Our Stem Cells are sourced from an ISO3 (clean room) laboratory, and heavily screened for the highest quality.

Unfortunately, Stem cells are not covered by insurance or medicare at this point in time but Dr. Garner has secured cells from an FDA approved lab and using her expertise will develop a plan of care to incorporate these amazing cells to help restore your health using all the best services BEST LIFE MedSpas has to offer.

For more information on Stem Cell Therapies or to explore treatment options, please contact BestLife MedSpas at

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