

PRP with Extracellular Matrix for Hair Restoration

Lucia Mireles-Chavez, MD
R3 Seminar



Lucia Mireles-Chavez, MD

- ◆ Co-Owner/Physician of Optimal Medical Group, Inc. in Fresno, California
- ◆ Certified Hair Coach and PRP by Bauman Medical Center, Boca Raton, Florida
- ◆ BHRT, Wellness, Fitness Assessment, Medical Weight Loss, Hair Restoration, Laser Therapy and Regenerative Therapy
- ◆ www.omgfitnessmd.com



Objectives

- ◆ Recognize need for variety of treatment options
- ◆ Identify who is a candidate for PRP for Hair Restoration
- ◆ Review Evaluation of Patient
- ◆ Review PRP Procedure
- ◆ Review Post Procedure follow up and treatment

Candidates for PRP

- ◆ Male and Female pattern baldness (Androgenic Alopecia)
- ◆ Telogen Effluvium
 - ◆ Post Pregnancy
 - ◆ Post surgery (ie Bariatric)
- ◆ Post chemotherapy
- ◆ Hormonal Imbalance (best if hormones are optimized)
- ◆ **Avoid in patients with low Plts or on Anticoagulants (Plavix)
 - ◆ Check for petechiae or bruises

Initial Evaluation

- ◆ OMG Hair Restoration Program
 - ◆ Baseline pictures and scalp high magnification pictures (if possible)
 - ◆ Medical history and past treatments
 - ◆ Hair Check: tool that measures hair density objectively
- ◆ Schedule PRP with avoidance of meds/supplements that alter platelet function for at least 1 week (NSAIDS, fish oil etc.)

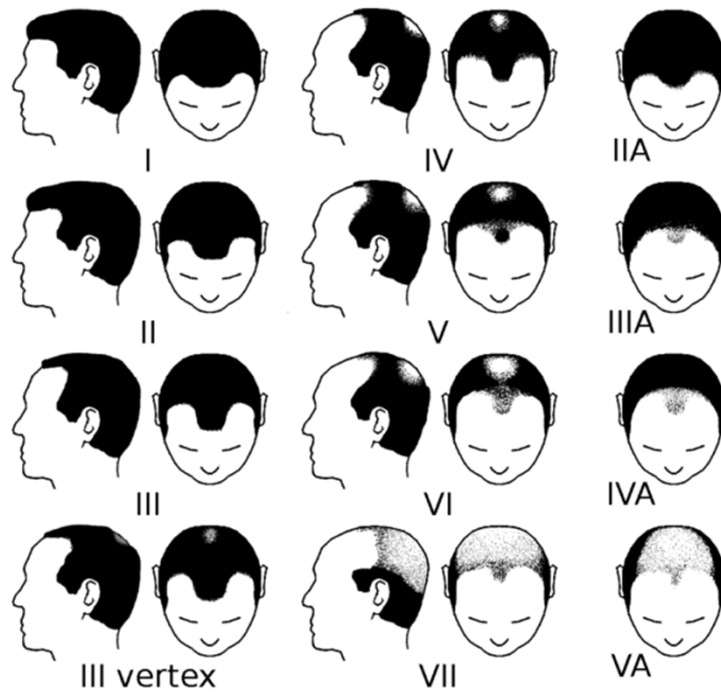
Initial Consultation

- ◆ Hair loss history
 - ◆ What have they tried in past?
 - ◆ Shampoo
 - ◆ Laser device
 - ◆ Vitamins/supplements
 - ◆ Prescriptions (Dutasteride or Finasteride)
 - ◆ OTC minoxidil

Hair Consultation continued

- ◆ Assess current degree of hair loss (Norwood Scale for men and Ludwig Scale for women) and main areas of concern
- ◆ Medical history review and major health events i.e. surgery
- ◆ Genetics
- ◆ Psychosocial effects
- ◆ Goals

Norwood Scale



Ludwig Scale



Objective Measures

- ◆ Photographs
 - ◆ Front face forward and chin down
 - ◆ Side
 - ◆ Back
 - ◆ Both sides



Objective Measures-Hair Check



Hair Check cont



Hair Check cont



Treatment Plan

- ◆ Establish which treatment plan is for them within budget and expectations
- ◆ Follow up every 3 months with pictures
- ◆ Add adjunctive therapy as needed

Hair Loss

- ◆ Androgenic: DHT causing miniaturization of hair follicle
 - ◆ Millions of men and women affected
 - ◆ 90% of alopecia
- ◆ Inflammatory: Alopecia Areata
- ◆ Hormonal: low thyroid, post pregnancy

Why Platelet Rich Plasma (PRP)?

- ◆ PRP delivers platelets which deliver growth factors and chemotactic factors to the hair follicles once activated
 - ◆ Decrease damage caused by inflammation
 - ◆ Stimulate stem cells at base of hair follicle
 - ◆ Attract other stem cells to help regenerate dormant follicles

Addition of Extracellular Matrix to PRP

- ◆ Extracellular Matrix products enhance the PRP even further by improving outcome
- ◆ Decrease the number of procedures required
 - ◆ One procedure can improve hair growth from 9-18 months afterwards
- ◆ Improved patient satisfaction

Double Spin PRP Processing

- ◆ PRP Definition: volume of autologous plasma that has platelet concentration above baseline depending on patient's own blood cell count (nl 150k-450k per mL)
- ◆ Therapeutic PRP: minimum platelet count of 1 billion platelets per mL to achieve results
 - ◆ Research supports 5X normal platelet is ideal
 - ◆ The higher the platelet count the more Stem Cells migrate and proliferate
- ◆ Most common reason for variable results
- ◆ Double spin increases concentration PLUS helps eliminate neutrophils from the PRP which can be counterproductive

PRP Procedure

- ◆ Prepare PRP according to instructions from double spin kit (Pure Spin)
 - ◆ Add ECM just before injecting subcutaneously
- ◆ Achieve best anesthesia possible using ring scalp block
 - ◆ Dental syringe and Septocaine
 - ◆ Use vibrating device at injection site to help block pain from injections
- ◆ Scalp washed with chlorhexidine and sprayed with antiseptic (ie Anasept)

PRP Procedure continued

- ◆ If patient has Laser Cap, instruct patient to use for 15 min prior to procedure
- ◆ Place patient where scalp is easy to access but patient is comfortable
- ◆ Drape patient and wrap gauze around scalp to prevent fluid from dripping onto face/eyes
- ◆ Inject ~0.1mL PRP with ECM subcutaneously in 1 cm sections horizontally across scalp concentrating in problem areas

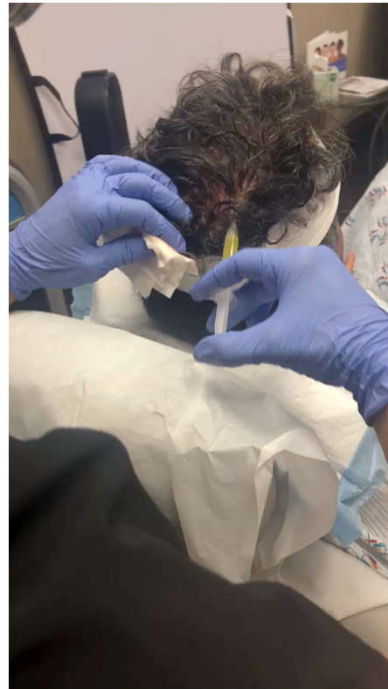
PRP Procedure continued



PRP Procedure continued

- ◆ Follow with another pass in similar fashion with Platelet Poor Plasma (PPP) with Calcium Gluconate and Dexpanthenol
 - ◆ This now activates the platelets and infuses the hair follicles with vitamins and other growth factors left behind in PPP
 - ◆ Decreases chances of clot formation in PRP injections

PRP Procedure continued



PRP Procedure continued

- ◆ Final step is using microneedle pen applied as a light stamp not circular
 - ◆ This avoids severing hair follicles
- ◆ Use left over PPP as a lubricating fluid during microneedling
- ◆ Any PPP remaining is massaged into scalp as a final liquid sealant

PRP Procedure continued

- ◆ Final spray with antimicrobial spray and remove any traces of blood from patient
- ◆ Instruct patient to use Laser Cap for additional 15 minutes after procedure
- ◆ Review post procedure care
 - ◆ Avoid fish oil, NSAIDs for 2 weeks
 - ◆ Acetaminophen is ok
 - ◆ Sleep upright for 1-2 nights to avoid asymmetric swelling of forehead area

Post Procedure

- ◆ Schedule follow up in 3 months with additional pictures
- ◆ May have initial “hair shock” after procedure as hairs shed to make room for new stronger hair
- ◆ Start or continue any medications for hair loss
 - ◆ Topical minoxidil
 - ◆ Topical Finasteride or Dutasteride
 - ◆ Spironolactone
 - ◆ Latonoprost

Post Procedure continued

- ◆ Start or continue supplements
 - ◆ High quality multivitamin with biotin
 - ◆ Saw Palmetto
 - ◆ Viviscal (AminoMar marine complex plus other nutrients)
- ◆ Start or continue special hair care
 - ◆ Shampoo/Conditioner without sulfates or other harsh chemicals which can irritate hair follicle and increase inflammation

TL 35 y/o female
with Alopecia Areata- 4 month
post PRP with ECM



TL continued



TL continued



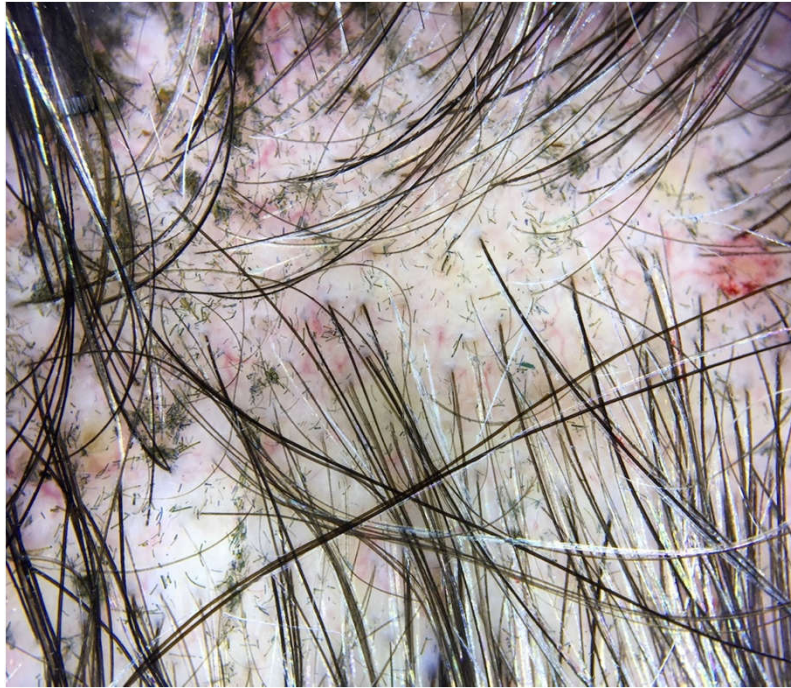
RS 54 y/o male with
Androgenic Alopecia – 8
months post PRP with ECM



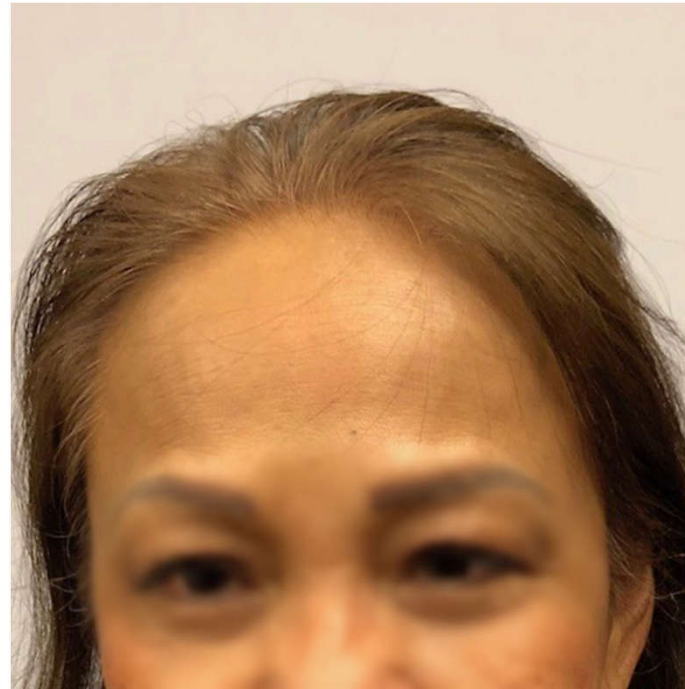
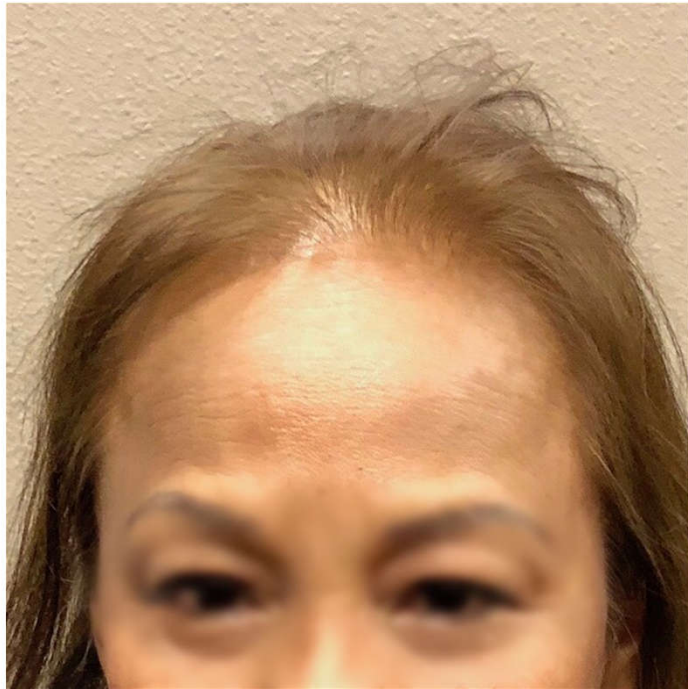
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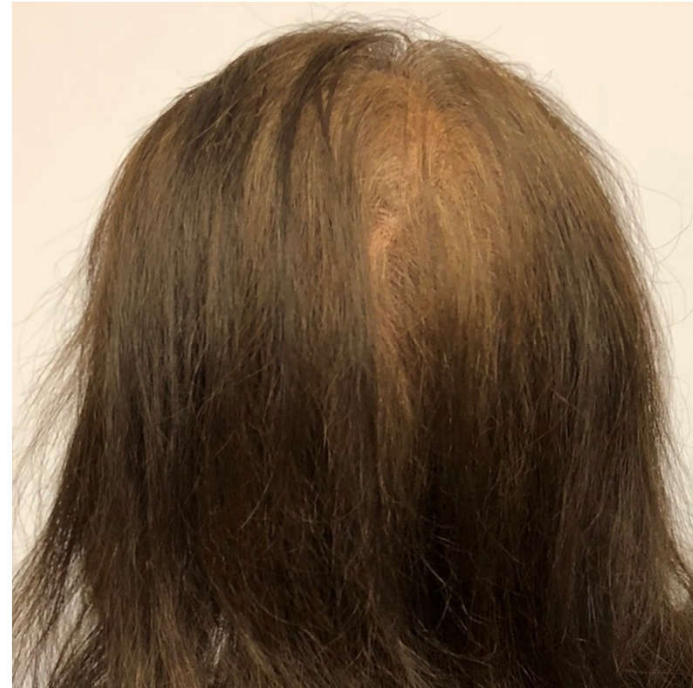
NG 65 y/o s/p Ovarian Cancer
Chemo Tx – 8 months post PRP
with ECM



NG continued



NG continued



Thank you!

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💧 info@omgfitnessmd.com

💧 R3 Stem Cell