

Supplementary Online Content

Alam M, Hughart R, Champlain A, et al. Effect of platelet-rich plasma injection for rejuvenation of photoaged facial skin: a randomized clinical trial. *JAMA Dermatol*. Published online November 7, 2018. doi:10.1001/jamadermatol.2018.3977

eAppendix. Supplementary Appendix

This supplementary material has been provided by the authors to give readers additional information about their work.

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Preparation of the venipuncture site

A suitably large peripheral vein free of lesions will be selected, typically the antecubital vein.

1. Blood will be drawn by using a 19-gauge butterfly access catheter to avoid trauma to platelets.
2. Tourniquet will be applied and a venipuncture site will be identified.
3. The area at least 4 cm in all direction from the intended site of venipuncture will be scrubbed with an aqueous solution of iodophor compound for a minimum of 30 seconds.
4. The area will be covered with dry, sterile gauze and this area will not be touched again until venipuncture.

Process Steps for platelet-rich plasma using the SmartPREP2 APC+ Kit (Autologous Platelet Concentrate+ Procedure Pack, Harvest Technologies Corp., Plymouth, MA) and the SmartPREP2 System (Blood Processing Centrifuge Harvest Technologies Corp., Plymouth, MA)

1. Draw 3 ml of acid citrate dextrose A (ACD-A) as an anticoagulant in a 20 ml syringe.
2. Transfer 1 ml ACD-A from the 20 ml syringe into the Plasma Chamber of the Process Disposable (PD).
3. Draw venous blood using acid a citrate dextrose-A (ACD-A) syringe to the $\frac{3}{4}$ oz mark (approximately 22 ml).
4. Transfer total syringe volume into the blood chamber of the PD (**red port**).
5. Load the SmartPREP® with the PD into the centrifuge, close the lid, and press the green start button. To prevent system imbalance, the correct balance weight will be used. The first spin (hard spin) will separate red blood cells from the plasma that contains platelets, white blood cells, and clotting factors. The second spin (soft spin) will finely separate the platelet concentrate (PRP) from the platelet poor plasma (PPP). The dual spin will be in one time in the separation system. Remove PD(s) when cycle is complete.
6. After processing, use the syringe with spacer and withdraw platelet-poor plasma (PPP) from **white port** until air bubbles are present. Discard the syringe of PPP.
7. Using a new syringe without the spacer, resuspend the platelet-rich plasma with remaining PPP.
8. The final 3 ml of autologous platelet-rich plasma will be immediately injected to the subjects within next 7 minutes.