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## USE OF REGEN BCT PLUS KIT FOR DIABETIC FOOT ULCERS

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**Introduction:** Nearly a quarter of diabetic foot ulcers will result in an amputation. In the US, approximately 1 in 2 people either have diabetes or are pre-diabetic. In 2012, 29 million Americans claimed the diagnosis of diabetes mellitus. According to the International Diabetes Foundation, there are more than 300 million people living with diabetes worldwide. Diabetes cost the global economy at least US \$376 billion in 2010, or 11.6% of total world healthcare expenditure. To lower morbidity and mortality from diabetic ulcers, prevention is key. Once ulcer has developed, physicians need safe and affordable ways to care for them. Prevention of amputation and decreasing healing times can lead to success. Traditional wound care, even if meticulous, does not cure all wounds. Despite adding on hyperbarics, expensive dressings and topicals, even arterial bypasses, still there will be some 15%-25% of patients in which the therapies will fail, leaving amputation as their only option for survival.

**Purpose:** To use Regen Platelet Rich Plasma (PRP) on acute and chronic non-healing wounds and evaluate if it is a cheaper, less invasive, and more efficacious therapy.

**Methods:** 88 year old diabetic US citizen with multiple co-morbitities including coronary artery disease, chronic renal insufficiency, anemia, and hypertension, developed a foot ulcer. Traditional therapies including topicals, compression wraps, and hyperbarics were not enough. A femoral PTCA performed was too late. His left foot was amputated on March 2015. Subsequently he went on to lose his right foot. When he was told that he would need an above the knee amputation, his daughter refused and begged me, a family physician, to save her left father's leg (that had previously nearly been amputated from an MVA at 29 and a massive burn when he was 22). The patient required dialysis and while the temporary access was being used, he maintained adequate blood supply until the permanent shunt was placed when his left pinky became ischemic. A DRIL procedure was performed too late. The authors employed PRP, platelet-rich-plasma derived from the patient using the Regen Lab BCT-2 plus kit. When the patient was threatened with a left above the knee amputation (LAKA), PRP treatments were begun. A series of PRP injections and applications were performed on day 1, 4, 13, and 32 following the Regen Lab Protocol (see attachments).

Results: All of the wounds treated improved or healed totally except for one (the left pinky).

**Discussion:** When Integra and wound debridement with beveled edges via the expert plastic surgeon did not advance wound healing in our patient, the patient was threatened again with amputation. The surgeon gave the authors one week to halt progression and to demonstrate wound healing, otherwise, the AKA would have been employed for survival of the patient.

**Conclusions:** PRP application using the Regen BCT Kit to and injection into chronic non-healing and new diabetic wounds enhances wound healing safely and cost-effectively even if there is suboptimal vascular supply.