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**Control/Tracking Number:** 16-P-2252-ECR

**Activity:** Scientific Paper (talk: 6min.+ 2min. discussion)

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**Efficacy of an outpatient musculoskeletal interventional radiology practice model in the treatment of knee osteoarthritis using autologous blood derived growth factors.**

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*Abstract:*

**Purpose:** To assess the efficacy of an outpatient healthcare delivery model, where the treating interventional radiologist assessed, treated and followed up patients with knee osteoarthritis. All patients were evaluated clinically and radiologically prior to performing ultrasound guided interventional procedures using autologous blood derived growth factors from plasma (GFP) for tissue augmentation.

**Methods and Materials:** A retrospective analysis of functional knee score WOMAC index in OA patients treated with autologous blood derived GFP procedures by the treating radiologist. All patients were clinically and radiologically evaluated by the treating radiologist and determined to be suitable for percutaneous procedures. Retrospective data was collected for a period of 12 months. Effect size was calculated using difference of the mean divided by the pooled standard deviation. A two tailed test was used to assess the null hypothesis.

**Results:** A total of 16 patients and 17 knees was evaluated. Average age of patients treated was 63.05 yrs (range: 40-79 yrs, standard deviation 9.9 years, male = 7, female =9). The average follow up period was 5.65 months (range: 5.3 to 6 months). Mean WOMAC knee score pre treatment of 51.34 (sd = 16.49) improved to mean post treatment 14.85 (sd= 15.9) (p<0.01, effect size 'd'= 2.25, 95% CI= 1.03-3.46).

**Conclusion:** A health care delivery model where the interventional radiologist clinically and radiologically assesses and treats knee osteoarthritis using ultrasound imaging guided percutaneous blood derived GFP shows a large effect size in improving the function of knee osteoarthritis in the medium term.

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**Author Disclosure Information:** A.X. Doss: None.

**Invest in the Youth (Complete):** No

**Topic (Complete):** Musculoskeletal

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**Areas of Interest:** Musculoskeletal joint

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**Imaging Technique:** Ultrasound

**Imaging Technique:** Ultrasound

**Imaging Technique:** Ultrasound

**Procedure:** Treatment effects

**Procedure:** Efficacy studies

**Procedure:** Health policy and practice

**Special Focus:** Patterns of Care

**Special Focus:** Quality assurance

**Special Focus:** Outcomes

**Status:** Complete

**Questions?**

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