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AB0976

EFFICACY OF INTRA-ARTICULAR INJECTION OF PRP-DRIVEN GROWTH FACTOR (PRP WITHOUT PLATELET AND WBC) VERSUS HYALURONIC ACID ON PAIN AND FUNCTION OF PATIENTS WITH KNEE OSTEOARTHRITIS: A SINGLE-BLINDED RANDOMISED CLINICAL TRIAL

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Background: Knee osteoarthritis is the most common joint disease.

Objectives: We aimed to compare the efficacy and safety of intra-articular injection of PRP-driven growth factor versus hyaluronic acid (HA) on pain and function of patients with knee osteoarthritis.

Methods: In this single-blinded randomised clinical trial, patients with symptomatic osteoarthritis of knee were assigned to receive 2 intra-articular injections of PRP-driven growth factor in 3 weeks or 3 weekly injections of HA. Our primary outcome was the mean change from baseline until 2 and 6 months post intervention in scores of visual analogue scale, Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC), and Lequesne index.

Results: A total of 69 patients entered final analysis. The mean age of patients was 58.2 ± 7.41 years and 81.2% were women. Total WOMAC index decreased from 42.9 ± 13.51 to 26.8 ± 13.45 and 24.4 ± 16.54 at 2 and 6 months in the PRGF group (within subjects $p = 0.001$), and from 38.8 ± 12.62 to 27.8 ± 11.01 and 27.4 ± 11.38 at 2 and 6 months in the HA group (within subjects $p = 0.001$), respectively (between subjects $p = 0.631$). There was no significant difference between PRP-driven growth factor and HA groups in patients' satisfaction and minor complications of injection, whereas patients in HA group reported significantly lower injection-induced pain.

Abstract AB0976 – Table 1

WOMAC scores		VAS			
		Pain	Function	Stiffness	Total
PRGF	Baseline	9.2±2.97	30.6 ±10.09	3.0±2.01	42.9 ±13.51
	At 2 month	5.8±2.96	19.5±9.79	1.6±1.66	26.8 ±13.45
	At 6 month	5.3±3.60	17.6 ±11.70	1.5±1.84	24.4 ±16.54
	<i>P value within groups</i>	0.0001	0.0001	0.0001	0.0001
Hyalgan	Baseline	8.7±3.01	27.8 ±9.62	2.3±1.64	38.8 ±12.62

7.4±1.48
At 2 month
5.9±2.65
20.6±8.04
1.2±1.39
27.8±11.01
4.8±1.80
At 6 month
5.9±2.79
20.1±7.77
1.3±1.48
27.4±11.38
4.8±2.39
P value within groups
0.0001

0.0001
0.0001
0.0001
0.0001
P value Between Groups
0.847
0.894
0.189
0.985
0.648

Abstract AB0976 – Figure 1

Conclusions: In 6 months follow up, PRP-driven growth factor and HA, both are effective options to decrease pain and improvement of function in patients with mild to moderate knee osteoarthritis.

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AB0977

CORRELATION OF THE LEVEL OF C-REACTIVE PROTEIN AND BONE MINERAL DENSITY IN PATIENTS WITH GONARTHROSIS

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Background: The results of recent studies also indicate a link between loss of bone mineral density (BMD) and progressive loss of articular cartilage in patients with knee joint osteoarthritis (OA). The presence of correlation of changes in bone tissue and degradation of cartilage in OA is due to the possible presence of common pathogenesis chains, including activation of proinflammatory mediators.

Objectives: Determine the relationship between the level of C-reactive protein (CRP) and the level of BMD in patients with gonarthrosis.

Methods: We conducted a cross sectional study including confirmed radiographic knee osteoarthritis according to Kellgren-Lawrence scale, with normal and reduced BMD according to the classification of Report of a WHO Study Group. The structural and functional status of bone tissue in patients was