Table 1. Main characteristics of patients with knee osteoarthritis at diagnosis

Parameters	Total population Mean (SD)	Male Mean (SD)	Female Mean (SD)	p
Age (years)				
Mean age	59.88(12.8)	61.48(14.38)	59.46(12.41)	0.43
<40	10(6.6)	4(12.9)	6(5)	0.24
40-65	87(57.6)	14(45.16)	73(60.83)	0.17
>65	54(35.8)	13(41.94)	41(34.17)	0.55
Residence				
Rural	37(24.5)	10(32.26)	27(22.5)	0.37
Urban	114(75.5)	21(67.74)	93(77.5)	0.37
Level of education				
Primary	40(26.5)	3(9.68)	37(30.83)	0.03
Secondary	66(43.7)	9(29.03)	57(47.5)	0.09
University	35(23.2)	19(61.29)	16(13.33)	0.0000
Illiterate	10(6.6)	0	10(8.33)	0.20
Duration of OA (months)	38(44.9)	39.7(58.92)	37.59(40.92)	0.81
Pain				
VAS pain (mean)	5.2(1.6)	5(1.34)	5.34(1.68)	0.29
Mild pain	25(16.56)	4(12.9)	21(17.5)	0.73
Moderate pain	94(62.25)	24(77.42)	70(58.33)	0.08
Severe pain	32(21.19)	3(9.68)	29(24.17)	0.13
Joint effusion	28(18.5)	4(12.90)	24(20)	0.51
BMI				
Mean BMI	32.42(6.25)	26.89(4.05)	31.33(6.41)	0.0003
Normal	30(19.87)	11(35.48)	19(15.83)	0.02
Overweight	46(30.46)	14(45.16)	32(26.07)	0.07
Obesity	65(49.67)	6(19.35)	69(57.5)	0.003
Lequesne index				
Mean Lequesne index	8.6(2.4)	8.32(2.53)	8.77(2.4)	0.35
Moderate handicap	40(26.49)	9(29.03)	31(25.83)	0.89
Severe handicap	64(42.38)	12(32.71)	52(43.33)	0.79
Very severe handicap	37(24.5)	8(25.81)	29(24.17)	1
Kellgren-Lawrence grading				
Grade 2	81(53.6)	19(61.29)	62(51.67)	0.44
Grade 3	55(36.4)	9(29.03)	46(38.33)	0.45
Grade 4	15(10)	3(9.68)	12(10)	1
Compartment involved				
1	18(11.92)	6(19.35)	12(10)	0.26
2	28(18.54)	4(12.9)	24(20)	0.51
3	105(69.6)	21(67.74)	84(70)	0.98
Medial femoro-tibial	128(84.77)	25(80.65)	103(85.83)	0.66
Lateral femoro-tibial	117(77.48)	23(74.19)	94(78.33)	0.80
Femoro-patellar	144(95.36)	29(93.55)	115(95.83)	0.95

Conclusion: Apart from obesity, characteristics of knee osteoarthritis seems to be similar in women and men at diagnosis in Cameroon.

Disclosure of Interests: None declared

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AB0870 PAIN AND FUNCTIONAL OUTCOME OF PERIPHERAL BLOOD DERIVED STEM CELLS IN PRIMARY OSTEOARTHRITIS OF KNEE AT LOW RESOURCES SETTING: A PHASE II PILOT RCT

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Background: Osteoarthritis (OA) of the knee is one of the main causes of musculoskeletal disability. Osteoarthritis is now often considered as organ failure. Because of limitations in the effectiveness of conventional management options, alternative possibilities such as cell based therapies are approaching into vogue

Objectives: To assess the effectiveness of peripheral blood derived stem cells (PBSCs) therapy for primary OA knee.

Methods: This phase-II pilot RCT was conducted after the IRB ethical clearance. Patients attending PM&R department of BSMMU having KL grade III osteoarthritis knee those fulfilled the selection criteria were considered as the sample. All respondents were divided into two groups by using randomization technique. In control group, 15 respondents received standard care for Knee Osteoarthritis. In PBSCs group, 15 cases received with single dose autologous peripheral blood derived stem cells (PBSCs). Stem cells were harvested using G-CSF 30MU and CD34 stem cells were collected through apheresis. Quality was ensured measuring cell viability and surface antigen. All respondents were assessed before treatment and at week 4, week 12 and week 24 for pain reduction and for functional improvement using Visual Analogue Scale (VAS 0-10 cm) and validated Bengali WOMAC questionnaire. Joint sonography was done before treatment, at 12 week and 24 week after treatment commencement.

Results: Female were 60% and 67% in control and PBSCs group respectively. The mean age was 56.3±6.7 and 55.8±7.3 year in control and PBSCs. After 12 weeks of stem cell therapy, pain reduction and functional significant improvement was observed in both groups. However, after 24 weeks further significant pain reduction, functional improvement was observed in PBSCs group. Moreover, the cartilage thickness measured by high frequency ultrasound and the mean cartilage thickness was increased by 0.14mm from the baseline among PBSCs group.

Conclusion: PBSCs is promising in patients with primary OA knee. Further large scale research is solicited.

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AB0871 OSTEOARTHRITIS IN OBESE PATIENTS

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Background: Obesity is a recognized risk factor for osteoarthritis (OA) of the knee joints, which is associated with increased biomechanical stress. However, the association of OA with metabolic syndrome is more multifaceted, since overweight and obese people have a similar increased risk of OA of the hand joints that do not carry weight, due to systemic factors.

Objectives: To identify the features of the course of OA in overweight patients.

Methods: 52 patients with an established diagnosis of osteoarthritis were examined: women - 84.6%, men - 15.4%, average age - 60.9 ± 8.9 years (32 to 78 years). Clinical examination, calculation of body mass index (BMI), determination of the X-ray stage of OA according to the Kellgren and Lawrence system; ultrasound examination of the knee joints; assessment of the severity of pain according to visual analog scale (VAS); the index WOMAC was used to evaluate pain, stiffness and physical function. We evaluated the quality of life by EQ-5D.

Results: The duration of OA was 8.75 [2.58; 26] years. The distribution of patients according to the X-ray stage of OA: I - 9.6%, II - 57.6%, III - 26.9%, IV - 5.9% of patients. The BMI range was from 21 to 43 kg/. A BMI up to 30 kg/ was found in 22 patients: 17.3% - normal weight, 25% - excess body weight. Thirty patients has BMI more than 30 kg/: I degree - 38.4%, II degree - 15.3%, III degree - 4%. Obese patients rated pain according to the VAS scale of 1.3 the score is more intensively than patients with a BMI <30 kg/m² (p <0.001). A detailed examination of each subsequent degree of obesity revealed a tendency to reduce the pain syndrome from 7.52 points at 1 degree of obesity to 5 points at 3 degrees of obesity (p <0.001). With increasing body weight, there was an increase in difficulties in daily activities according to the WOMAC (p <0.05). Reactive knee synovitis was detected in 25 (48%) patients. The incidence of synovitis in patients with a BMI <30 kg / m² is 27%, with a BMI > 30 kg / m² is 68%. Patients with obesity of 1st degree had synovitis in 65%, 2nd degree - 75%, 3rd degree - 84% of cases (p <0.05). A high correlation between the x-ray stage of OA and BMI (r = 0.74; p <0.001) was revealed. According to the EQ-5D questionnaire, patients with the 1st degree of obesity (2.31 ± 1.3) were very anxious, but the level of anxiety decreases in patients with 3rd degree of obesity (1.44 ± 0.9) and it's equal to that in individuals with normal body weight (1.33 ± 0.8).

Conclusion: The existence of obesity in patients with OA is associated with an increase in pain, a significant decrease in functional ability, a presence of reactive synovitis of the knee joints, aggravation of the X-ray stage of OA, and the appearance of anxiety and depression. However, with the further progression of obesity, the levels of anxiety for one's condition decrease.

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