***SUPPLEMENTARY MATERIAL***

***BJPT\_2017\_326\_R1***

***PROTOCOLS (****Exercise\_description\_illustration****)***

***TREATMENT PROTOCOL PERFORMED BY THE SUBJECTS***

APPENDIX A

**QUADRICEPS GROUP**

1.Bike – 15 minutewarmup



2.Straight Leg Raise – 3 sets of 10 repetitions with ankle weights resistence\*.

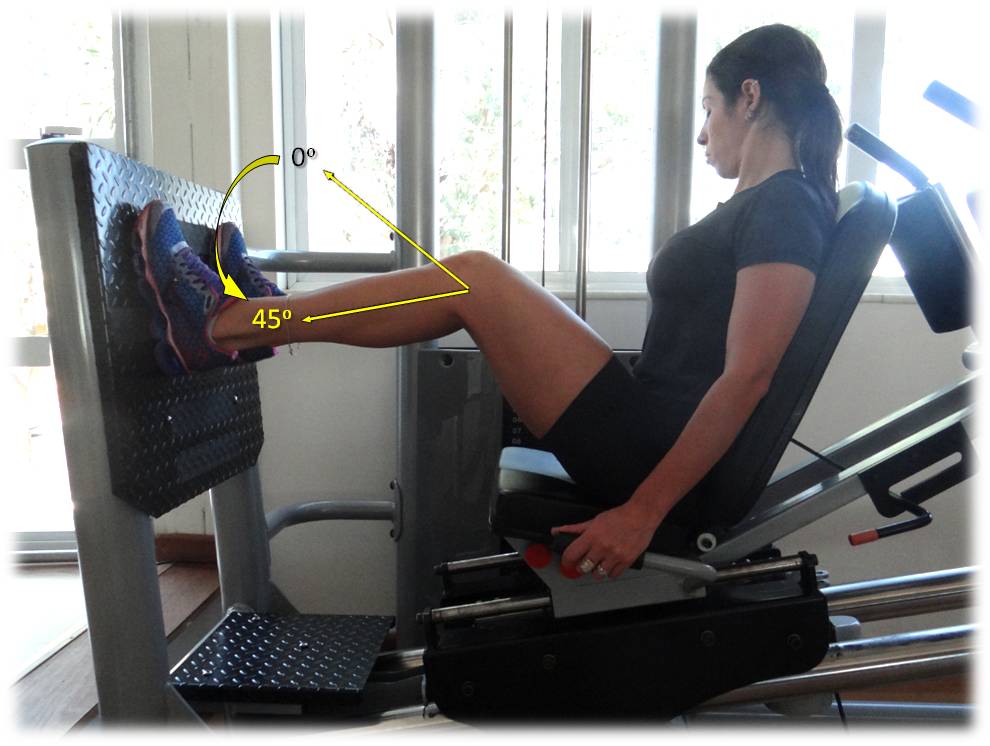
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\*Resistance = the weights were increased based on the patient’s reportson the Rating of Perceived Exertion (RPE) scale based on Borg's Scale of Effort.

3.Seated knee extension (open kinetic chain exercise, 90º – 60º of knee flexion) - 3 sets of 10 repetitions with resistence\*.

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4.Leg Press (closed kinetic chain exercise, 0º – 45º of knee flexion) - 3 sets of 10 repetitions with resistence\*.

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5.Wall Slide Squat at 90°- 3 setsof 1 minute

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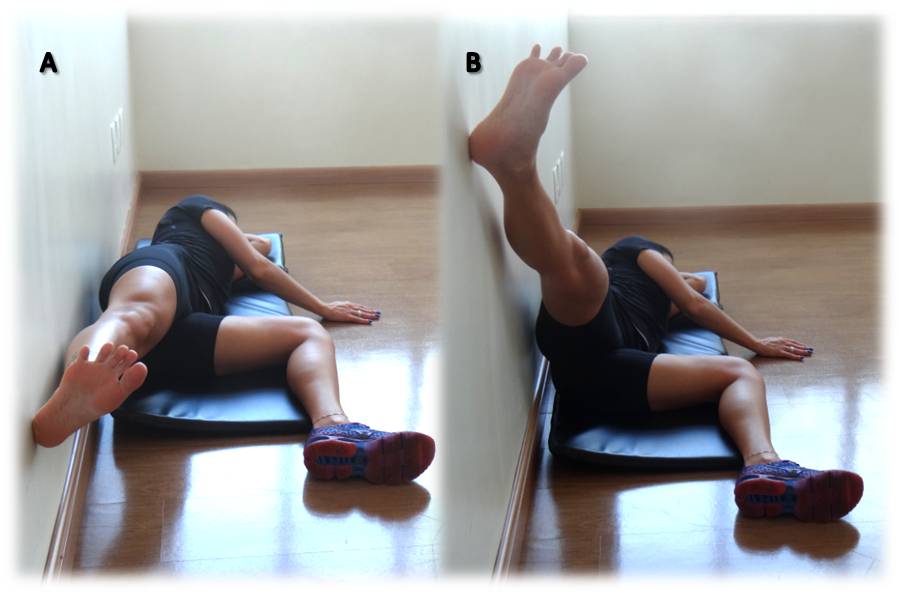
APPENDIX B

**HIP GROUP**

1.Bike – 15 minutes warmup



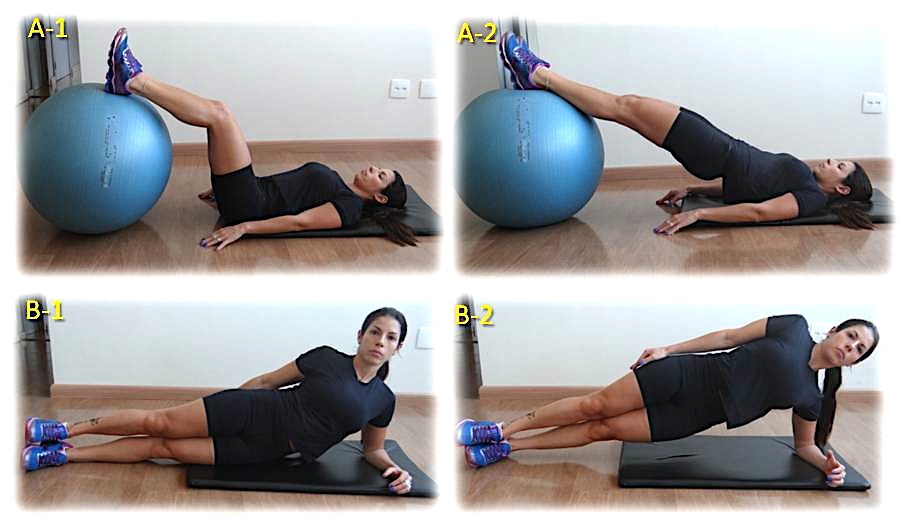
2.Straight Leg Raise in side lying– 3 sets of 10 repetitions using ankle weights asresistance\*.

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PS.: Exercise performed with slight extension and external rotation of the hip to emphasize posterior fibers of gluteus medius.

\*Resistance = the weights were increased based on the patient’s reportson the Rating of Perceived Exertion (RPE) scale based on Borg's Scale of Effort.

3.Supine Bridge on Ball (A-1 start position, A-2 final position) and Lateral bridge (B-1 start position, B-2 final position) - 3 sets of 10 repetitions with 10 second isometric hold on the last repetition

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4.Seated Hip Abduction - 3 sets of 10 repetitions with resistance\*.

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5.Strengthening the extensors, abductors and hip external rotators at four support positions (A – start position, B – intermediary position, C – final position) - 3 sets of 10 repetitions with ankle weights resistance\*.

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APPENDIX C

**STRETCHING GROUP**

1.Quadriceps stretching (A – standing position, B – variation in lying position) - 3 - 30 second stretches

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2.Hamstrings stretching (A – supine position, B – variation in seated position) - 3 -30 second stretches

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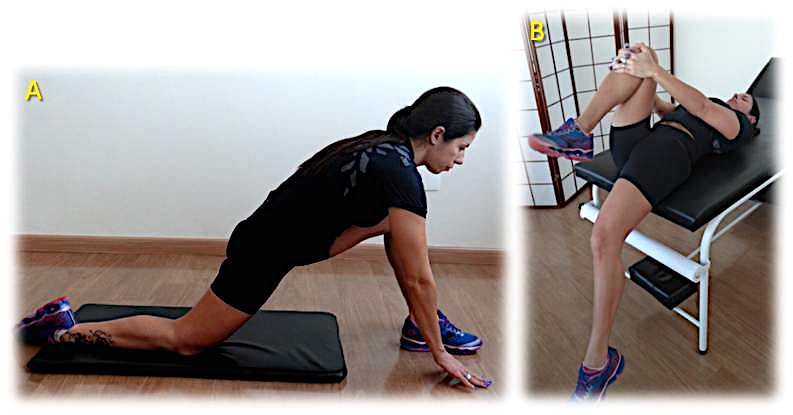
3.Gastrocnemius and soleus stretching (A – with assistance of ramp, B – standing position) - 3 - 30 second stretches

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4.External rotators of hip and iliotibial band stretching (A – start position, B – intermediary position, C – final position) - 3 - 30 second stretches



5.Flexors of hip stretching (A – on the floor, B – with assistance of the therapist) - 3 -30 second stretches

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6.Aductors stretching - 3 - 30 second stretches

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7.Abdominal stretching - 3 -30 second stretches

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