



AQUACENTRIC

THErapy

Redefining Physiotherapy

EVIDENCE FOR PRACTISE

Case study



Client profile

Name	<input type="text"/> 45years female
Chief Complaints	Recurrent Low back pain radiating to left leg, along with numbness in the foot for which microdiscectomy was done.
VAS	9/10
Aggravating Factors	Difficulty in sitting, bending, walking or standing , traveling for more than 5 to 10minutes
Diagnosis	L5 S1 disc herniation with superior migration indenting S1 nerve root
Under	Dr. Nikhil Arbatti (Family Doctor)
Consultation date	7-05-2019
Date of joining	11-05-2019
Referral	Client Referral- Heena Reshamwala
Number of sessions advised	50
Reviews done	3



Comprehensive examination

Posture	Reduced lumbar lordosis
SLR	20 degree covert positive
ROM	Flex-major loss , pain during movement-radiating pain to left leg Extension-major loss pain during movement Right side glide in standing-end range pain in back-no loss Left side glide in standing-end range pain in back-no loss.
Muscle strength(right)	L4 abductors-grade 3 L5-great toe-grade 3 S1 calf-grade 4
Sensory Examination	30 % loss right L5 S1



Physiotherapy Goals

- Abolish low back pain radiating to left foot along with numbness.
- Improve left sciatic nerve mobility.
- Improve core muscle strength focusing on deep iliacus, superficial multifidus, obliques and deep gluteus.
- Improve bilateral lower limb strength focusing on left glutes, abductors, calf and great toe strength.
- Improve flexibility of bil hamstring and calves left > right.
- Improve general endurance.



Therapy Intervention

Frequency and duration of sessions	3 sessions/week for 50 ,45 min duration . Initial 4 weeks did 2 aqua/1 land, post 4 weeks did 1 aqua /1 land.
Intensity	Low to High
Intervention	<ul style="list-style-type: none">• Water specific therapy for strengthening of postural stabilizers,• Aquatic strengthening• Endurance training,• Aquatic treadmill
Land	<ul style="list-style-type: none">• McKenzie-pain reduction.• NDS.• Pilates.• Yoga.



Therapy Intervention

Frequency, Duration	Two times 3 sessions/week for 50 ,45 min duration . Initial 4 weeks did 2 aqua/1 land Post 4 weeks did 1 aqua /1 land.
Aqua Strengthening	Extremity and trunk movements: Aquatic noodles, aquatic dumbbells, weights, fins and water resistance, kick board.
Postural control	Dynamic balance activities : kickboards and single leg activities water obstacle course, standing activities, frisbee
Gait training	Walking through various water depths, underwater treadmill walking, step climbing, backward walking, lateral shuffles .
Land-Mckenzie	Extension principle of McKenzie majorly to reduce pain and improve flexion rom, NDS-nerve mobility, Kinetic Control-core strengthening, Pilates.



Outcomes post therapy

Test measure	Baseline-consultation	Review 1-10 th session	Review 2-22 nd session	Review3-36 th session
ROM-FLEX EXT	Major loss Major loss	Moderate loss Major loss	Minimal loss Moderate loss	No loss
SLR(Covert)	20 degree	30 degree	70 degree	free
Sensory	30% L5 S1	10% L5 S1	2% L5 S1	2% L5 S1
STRENGTH	L4 abductors- grade 3 L5-great toe- grade 3 S1 calf-grade 4	L4 abductors- grade 4 L5-great toe- grade 4 S1 calf-grade 4	L4 abductors-grade 5 L5-great toe-grade 5 S1 calf-grade 5	L4 abductors-grade 5 L5-great toe-grade 5 S1 calf-grade 5
VAS	9-BACK LEG	7- BACK LEG	0.5-BACK,0-LEG	0-BACK,0-LEG

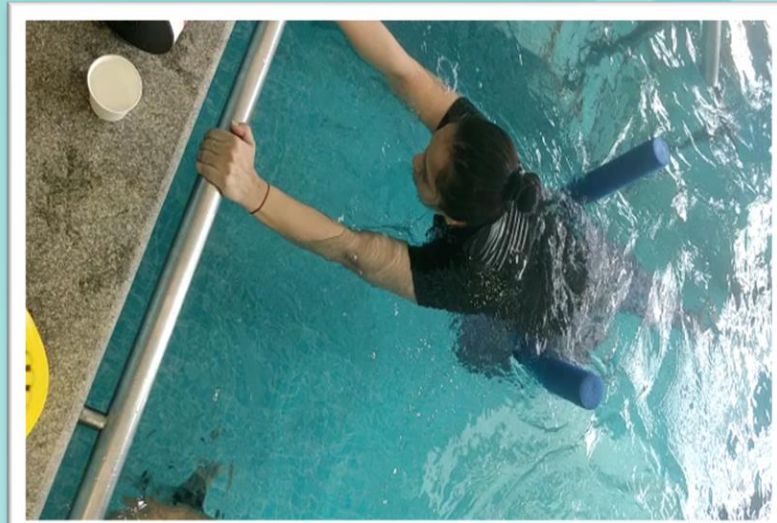


Pre/ Post Aquatic Therapy Videos

Strengthening- Beginner level



Strengthening -Advance level



Land Therapy Pictures (Advance core training)



Thank You

