



Sports Medicine Roadshow 2019

Course Convener: Mr Patrick Carton MD FRCS

Course Coordinator: Mr David Filan

UPMC Event Manager: Ms Claire Phelan



**THE
HIP & GROIN
CLINIC**

UPMC | WHITFIELD



CANTA CLINIC
HEALTH CENTRE

Conservative Management and Outcome of Femoral Acetabular Impingement

William Power MISCOP

Canta Clinic Carlow

Contents

- Conservative Management for FAI
- FAI Pathway
- Education and Physical Therapy
- Manual Therapy
- Prehab/Rehabilitation Exercises
- Examples of Exercise
- Other Considerations
- Outcomes of Conservative Management - The Evidence
- Education and Avoidance of Injury
- Conclusion

Conservative management

The Warwick Agreement (2016) on FAI indicated there were three forms of treatment:

1. Conservative Care
2. Rehabilitation
3. Surgery

‘Personalised Hip Therapy’ (Wall et al, 2016) included four components:

- Protocol developed by panel of professionals (ESP’s, research physiotherapists, orthopaedic surgeons).
- Agreed by consensus statement – 36 physiotherapists from USA, UK and Australia agreed on protocol.



Conservative Care/Physical Therapy

1 Patient Education and advice

- Education about FAI and available treatments
- Advice about posture, gait and lifestyle behaviour modifications to try to avoid FAI.
- Advice about activities of daily living to try to avoid FAI (reducing / avoiding deep flexion, adduction and internal rotation of hip)
- Advice about relative rest. In particular, relative rest in a specific ROM where pain in that particular ROM is likely to represent ongoing impingement. Specific activity/sport technique advice and modification.

2 Patient Assessment

- History: to include: History of presenting complaint, relieving and aggravating factors, past Medical History, medications, previous treatments, social history including occupation, patients concerns, fears and beliefs, patients individual requirements and expectations.
- Examination Determine pain-free, passive ROM in the hip, determine the strength of motion in the hip in flexion, extension, abduction, adduction, internal and external rotation and impingement testing

3 Help with Pain Relief

- Advice about anti-inflammatory medication for 2 to 4 weeks.
- Advice about simple analgesics if they do not respond well to anti-inflammatory medication.
- Engagement in, and adherence to, a personalised exercise programme

4 Exercise-based hip programme

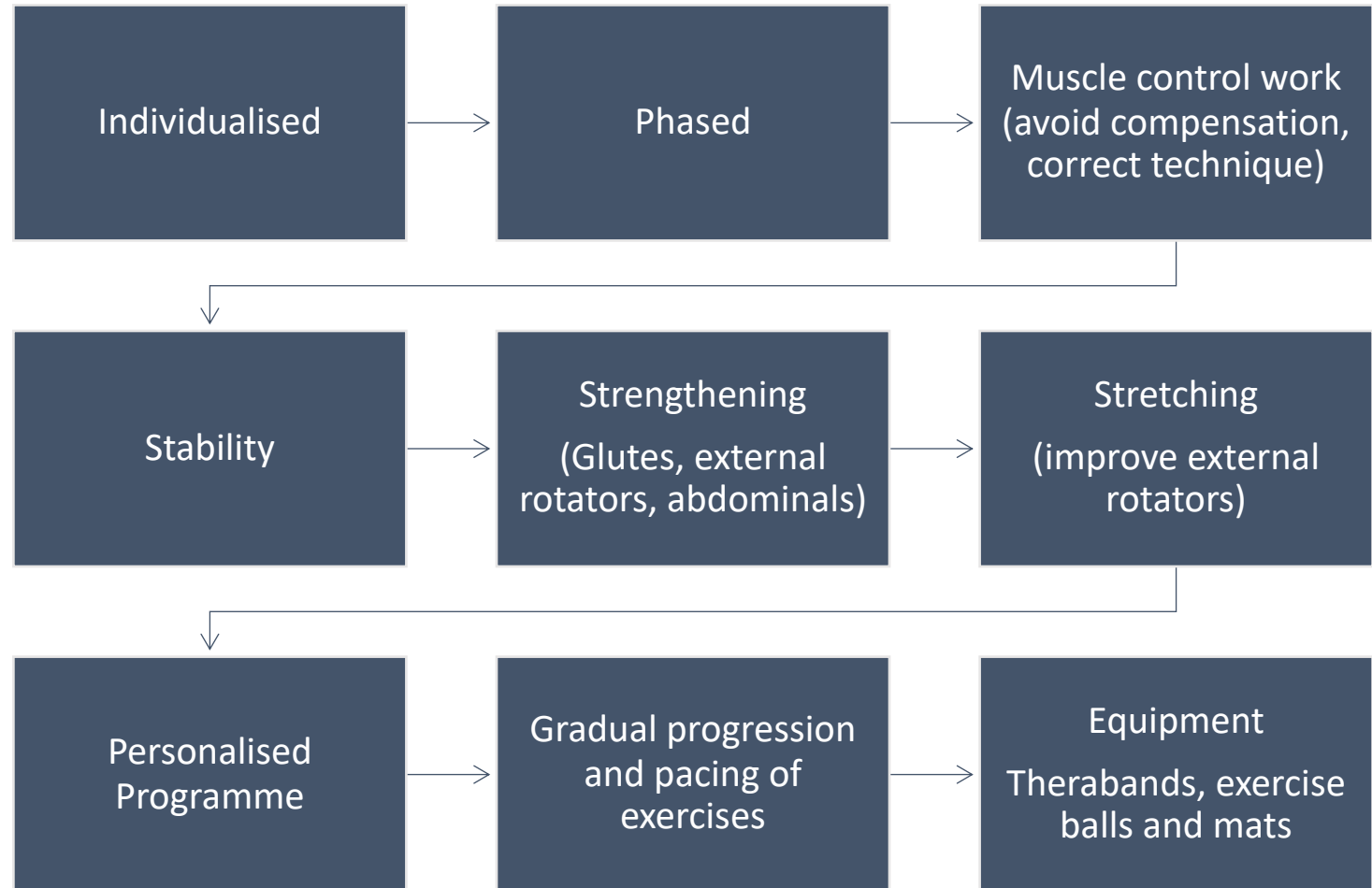
- An exercise programme that is individualised, progressive and supervised.
- A phased exercise programme that begins with muscle control work, and progresses to stretching and strengthening with increasing ROM and resistance.
- Muscle control / stability exercise (targeting pelvic and hip stabilisation, gluteal and abdominal muscles)
- Strengthening / resistance exercise firstly in available range (pain-free ROM), and targets: Gluteus maximus, short external rotators, gluteus medius, abdominal muscles, lower limb in general
- Stretching exercise to improve hip external rotation and abduction in extension and flexion (but not vigorous stretching – no painful hard end stretches). Other muscles to be targeted if relevant for the patient include iliopsoas, hip flexors and rotators.
- Exercise progression in terms of intensity and difficulty, gradually progressing to activity or sport-specific exercise where relevant.
- A personalised and written exercise prescription that is progressed and revised over treatment sessions.
- Encourage motivation and adherence through the use of a patient exercise diary to review progress.
- Patients to have access to therabands, exercise balls and exercise mats.

Manual Therapy

12 Weeks, 6-10 Sessions

- Hip Distractions
- Distractions, with flexion
- AP glides
- Trigger point work
- Taping techniques (trochanteric bursitis)
- Treatment of Lspine and/or other presentations
- Gait re-education
- Treatment of lower extremities, including orthotic prescription
- Prescriptive exercises (glute activation, motor control and spinal stabilisation)

Rehabilitation



Exercises

Reformer based strengthening

Mini band strengthening

Multi directional balance and control (wobble board)

Proprioception

Isolated muscle activation

Core work – including transversus activation

Functional activity based on ability in each phase (e.g. walk, jog, run, with directional change)



Example of
Manual Therapy



Examples of Exercises



Highest % MVIC EMG Exercises for Glut Med and Glut Max Muscles

Exercise	Glut Med ranges	Glut Max ranges
Clam Shell	38-40 ¹	34-39 ¹
Side-lying Hip Abduction	81 ¹ , 39 ² , 42 ⁴	39 ¹ , 21 ²
Plank (on elbows/toes)	27 ²	9 ²
Quadruped Opp Arm & Leg	42 ²	56 ²
Bridge	28 ²	25 ²
1 Legged Bridge	47 ²	40 ²
Side bridge (on elbows/feet)	74 ²	21 ²
Standing Hip Abduction (NWB side)	28-33 ⁴	
Standing Hip abduction (WB leg)	42-46 ⁴	
Side lunge	39 ¹	41 ¹
Forward Lunge	42 ¹ , 29 ² , 18 ⁵	44 ¹ / 36 ² / 22 ⁵
Forward Hop	45 ¹	35 ¹
Sideways Hop	57 ¹	30 ¹
Side Step with Ankle Band	61 ¹	27 ¹
Lateral Step Up	43 ² , 38 ¹	29 ² , 56 ¹
Forward Step Up	44 ³	74 ³
1 Leg Wall squat	52 ³ , 13/25/35 ⁵ (Ant, Mid, Post GMED)	86 ³
Single Leg Squat	64 ¹ , 36 ³ , 30 ⁵	59 ¹ , 57 ³ , 35 ⁵
Single Limb Dead Lift	58 ¹	59 ¹
Pelvic Drop	57 ⁴ , 21/28/38 ⁵ (Ant, Mid, Post GMED)	
Sarhmann Wall Glut Med	28/39/76 ⁵ (Ant/Mid/Post GMED)	
Walking	16 ⁸	13 ⁸
Elliptical	18-20 ⁸	18-20 ⁸
ProFitter:		
Trunk upright ½ way side-to-side	17 ⁷	14 ⁷
Trunk upright slide end-to-end	30 ⁷	15 ⁷
Hips flexed slide end-to-end	36 ⁷	25 ⁷

Other Considerations

- Referred pain from lumbar spine
- Trochanteric bursitis
- Muscle strain or injury (adductors, hip flexors)
- Muscle imbalance/poor motor control
- Hypermobility
- Any underlying presentations e.g. hip dysplasia
- Activity pacing (growth spurt)
- Managerial pressures (over activity)

Outcomes of Conservative Management: The Evidence

‘Hip arthroscopy versus best conservative care for the treatment of femoroacetabular impingement syndrome (UK FASHIoN): a multicentre randomised controlled trial.

‘Protocol for a multicentre randomised controlled trial comparing arthroscopic hip surgery to physiotherapy-led care for femoroacetabular impingement (FAI): the Australian FASHIoN trial’

Education and Avoidance of Injury

- Age specific groups are more susceptible to injury
- Heightened activity during a growth spurt - hormonal implications
- Poor training techniques
- Misguided exercise programmes
- Over activity
- Inadequate rest periods
- Pressures of performance and managers.

Conclusion

Early education - key to avoiding symptoms

If symptomatic - early detection and diagnosis is essential

Specific & graded exercises programmes

Manual therapy, in conjunction with rehabilitation

If above fails, surgery is indicated (once OA is not present)



SPORTS MEDICINE ROADSHOW

Talbot Hotel, Carlow

01st November 2019