Common Shoulder Problems in Primary Care

Diarmuid Molony Consultant Shoulder and Elbow Surgeon



Internal use only by approved personnel. Unpublished Work © Beacon Hospital. All rights Reserved. In Strict Confidence.

THIS IS MODERN MEDICINE

Evolution









Imaging

- Bankart
- Perthes
- ALPSA
- GLAD
- GRAD
- HAGL
- Bennet
- Hill-Sachs
- McLaughlin
- SLAP





Sources





History

Trauma? Age? Distribution

- ? Neuro
- ? Cervical
- ? Anatomical

Timing?

- Sudden
- Gradual
- Progress

Position? Mechanical? Sleep?





		M	r Diarmuid Mo	olony. MCh F	RCSI (Tr&Orth)			
			Clinical As	ssessment	Shou	ılder.			
Patient Sticker Here		Here	1		Age: Occu		upation:		
					Dominance:		R	L	
					Affect	ed Limb:	R	L	
			ļ		Durati	on:			
Activity P	rofile:								
Pain:	Onset	í.		Index trauma:			Progress:		
Anatomica	ıl Loca	tion:							
Night Pain:			Pain lying on the affected Side:						
Sleep Deprivation:			Pain Overhead						
Pain Post Activity:		y:	ADL Limited By Pain: No Mild				U.		
Mechanical:				Moderate Severe			erate re		
Strength: No Loss Mild Moderate Severe			Stability: Norma Apprel Rare S Receur Recur Fixed I		Normal Apprehensio Rare Sublux Recurrent S Recurrent D Fixed Dislo	l tension ubluxation tent Subluxer tent Disclocator Dislocator			
Dislocatio	n:	Ant	Inf		Post		A/E?		
Index		Frequency			Most Recent				
Other Lim	b Insta	bility or FHx:							
Treatmen	t to Da	ite:							
Injection:		Surgery:							
Physio:									
General N	ledica	Ŀ							



Scapulothoracic:

Wasting:		()		
Deltoid	1			
Infra		()		
Supra				
Capsule:		Pain?		Pain?
GIRD				
ERD				
ABDD				
ACJ:				
HOH				
Scarf)		
Tender				
Cuff:	Power	Pain?	Power	Pain?
Sub				
Supra				
Infra				
Teres				
Impinge:		0		
HK				
Neer				
Biceps:				
Speed				
Yergeson	59	Ŷ.		
O' Brien		0		
Tender				
Stability:		Pain?		Pain?
Ant App				
Reloc				
Post App				
Beighton		Gagey		Ant Capsule

Range: Glenohumeral Composite Power Position of pain Area of pain Special tests



Main goal: Don't miss acute massive cuff tears!





Good Motor

Good Range

Bad Motor

Good Motor

Bad Range

Bad Range

Bad Motor

Snapping Scapula Dyskinesia Impingement Bursitis

Physio

- Scapular Control
- Posterior Training





≷ Beacon Hospital

bursitis

Scapulothoracic

Thoracic outlet

Brachial plexus

- Peripheral
- Mixed

Suprascapular nerve

• Spinatii wasting

Parsonage Turner

Pain without neuro

Radicular

- Neck Exam
- Dermatomal
- Spuerlings









56 Female active Gradual onset pain No specific trauma Increasing severity Now affecting sleep Range of motion reduced Worse with physio





Capsulitis





Common Often atraumatic Severe pain Limited ER & AB End range pain ER Very debilitating Diabetes Algorithm:

- I.A. Injection
- Hydrodilation
- Release

R/O Cuff Weakness!





Surgery Rare Injection and Hydrodilation Beware Diabetics



60 Male desk worker Gradual onset left shoulder pain Worse in mid range abduction Active range ER and elevation OK Cuff activity OK Protracted scapula





Sub-Acromial Impingement

Mid arc pain Pain lying on side Varying severity Positional







Neer



Beacon Hospital

Subacromial Bursitis/Impingement

Common Mid Arc Pain Range not restricted

- ? Scapular position
 - Hitched
 - Protracted
- ? Other Pathology (Imaging)
 - Calcific tendonopathy
 - Cuff Tear

Algorithm:

- Injection
- Physio (Scapula / Cuff)
- Rarely Decompression

R/O Cuff Weakness!









46 year old male Increasing load in the gym Superior right shoulder pain Difficulty lying on it Grinding feeling Tenderness over AC joint





AC Joint

Normal Acromioclavicular joint



Deformity

History of Trauma

Tenderness (Differentiate Traps!)

"Scarf" Test

Radiology may confirm







Injection under Image

Physio

Excision arthroplasty



Case 4

40 year old male Mild pre existing shoulder pain Delivery driver Lifting a box which slipped Felt pop Deformity in humerus Bruising ++





Biceps





- MRI Useful to
 rule out cuff
- Biceps itself not concerning
- Physic initially
- Later tenodesis
 occasionally





57 YO male Starting a chainsaw Felt something go Initially painful but now only on loading Weak elevation

Any improvement with physio? Any history of shoulder pain? Is active range restricted?







Cuff Tears

4 Tendons: Isolate Teres Minor Infraspinatus Supraspinatus Subscapularis

Look For wasting

Symptomatic Function Pain Duration Improvement?

54% Asymptomatic > 60













1: Humeral Rotation

- Supraspinatus has equal abduction strength to Deltoid¹
- Teres/Infra and Subscap are prime ext and int rotators
- 2: Compress the GHJ (Concavity Compression)
 - With Increasing abduction JRF increases
 - Force couple of Coronal pulley centres GHJ

3: Muscular Balance²

 Complex relationship between periscapular and intrinsic muscles as GHJ does not have a fixed axis



50% become symptomatic¹

- 45% Will increase in Size¹ (55% if over 60)⁶
- Relationship With Arthrosis² (CTA)
- Fatty Infiltration and Atrophy affect function
- FI and A progress over 16 weeks^{3,4}

Cuff repair has a lasting improvement in pain and function⁵

1: Yamaguchi K. J Sho Elb Surg 2001 2: Colville J. J Sho Elb Surg 2003 3: Gerber C. JBJS (A) 2001 4: Altcheck DW, Warren R. JBJS (A) 2003 5: Cofield RH. JBJS (A) 2001 6: Boynton JBJS(A) 2009



NZ Cuff Registry



What we can tell our patients:

- Your pain will be dramatically better at 6 months than it is today, and will keep slowly improving for 2 years
- You will finish up with little or no pain
- Your function will also be much better in 6 months. By two years it will likely be normal or near-normal.



- Tendinopathy
- Calcific tendinopathy
- Bursitis

- Partial Thickness Tears
- Intrasubstance tears
- "Thinned Cuff"





Cuff Terms

Small/Medium/Large/Massive

Retraction

Superior Migration

Rotator Cuff Arthropathy

Pseudoparalysis





Timing

Trial of Active Conservative: Acute on chronic symptoms Small tears Compensated cuff function < 3 months

Acute Repair:

Previously asymptomatic Index injury Pseudo paralysis Large full thickness Imaging suggestive of acuity

Better outcome in larger tears if done in 3/52 rather than 6 or 12 for both strength and range





Elective Repair

- Conservative > 3 months1,2 without improvement
- Symptoms > 1 Year
- Deteriorating symptoms
- Persistent disability

Several studies show outcome not related to timing in small to medium tears

 Those that do well with conservative do so before 3 months

1:Sanders R: Effectiveness of physical therapy in treating a traumatic full-thickness rotator cuff tears: a multicenter prospective cohort study J Shoulder Elbow Surg 2013; 22: pp. 1371-1379

2: Bokor D, Hawkins R: Results of Non Operative management of full thickness rotator cuff tears.Clin Orth 1993



Younger higher demand

Significant weakness

Significant pain

Not responding to physiotherapy

Medium/Large/Massive tear on scan

1°Dislocation >45 with weakness persisting





Non operative

- Neer: Never reproduced
- Itoi: Variable

Debridement

- requires a balanced force couple
- Stable fulcrum
- ? Biceps / CAL

Partial repair



Infraspinatus



Massive RCT

Superior Capsule Reconstruction

Tendon Transfer (Gerber 1992)

- Young, no arthrosis
- Adequate physio

Reverse Shoulder Arthroplasty

- Older, low demand, arthrosis
- Pre op elevation < 90







Evidence supports cuff repair Patients can expect lasting good outcome

Beware radiological diagnoses!

Timing dependant on size, function and acuity

- >3/12 No improvement
- >12/12 Still symptomatic or deteriorating
- Acute dysfunction

Suitability for repair in massive tears dependant on

- Retraction
- Fatty degeneration
- Arthropathy

Irreparable cuff advanced options are patient dependant



73 Year old lady Painful and stiff shoulder Grumbling on for years Remote injury Failed physio

Power? Range? Mechanical Symptoms?









Cuff Arthropathy

Osteoarthritis



Arthroplasty





Shoulder Arthroplasty

٠

•

•

•

•

•

•

Degenerative Post Tro Rheum AVN Other Functio Soft Tis:





- Pain control
- Sometimes improvement in function
- Pre operative function best predictor of post op
- Reverse less predictable
- Elevation < 90, Poor ER and pain





Questions?





Thank you

