

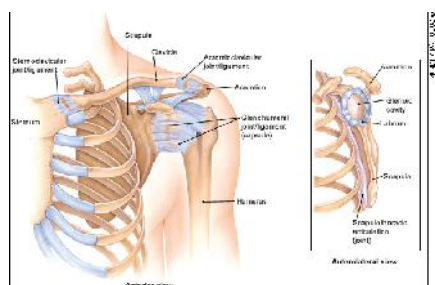
Anamnesis Keluhan Nyeri Bahu

dr Rachmah Laksmi Ambardini
FIK Universitas Negeri Yogyakarta
Email: rachmah_la@uny.ac.id

Tujuan

- Memahami anatomi sendi bahu
- Memahami bagaimana mengevaluasi keluhan nyeri bahu
- Mendiskusikan tes provokasi yg digunakan untuk evaluasi nyeri bahu.
- Menguasai temuan anamnesis dan pemeriksaan fisik yg dapat membantu diagnosis masalah-masalah pada bahu.
- Mendiskusikan kelainan yg umum terjadi pada bahu dan penanganannya.

Shoulder Anatomy



Reference 1

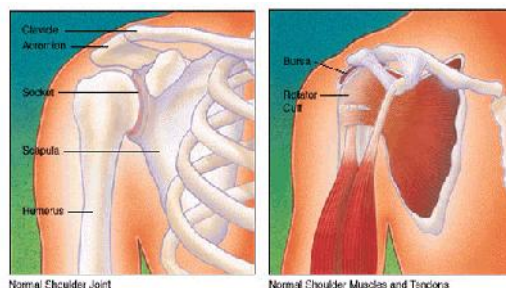


Figure 1: Normal anatomy of the shoulder

Anatomi Bahu

- Bahu mrp salah satu sendi yg paling kompleks.
- Terdiri atas:
 1. Struktur Tulang:
 - Humerus
 - Glenoid
 - Acromion
 - Clavicle
 2. Struktur Jaringan Lunak:
 - Otot-otot Rotator cuff dan elemen penyokongnya.
 3. 4 Sendi :
 - Glenohumeral joint
 - Acromioclavicular joint
 - Sternoclavicular joint
 - Scapulothoracic joint/pseudoarticulation

Sendi Glenohumeral (GH)

- Bagian sendi yg paling sering mengalami dislokasi.
- Prinsip-Prinsip Dasar:
 - GH joint a ball and socket joint
 - Fossa glenoid datar dan jauh lebih kecil daripada caput humeri yg melekat padanya (persentuhan hanya 25-30%).
 - Cartilaginous labrum menyediakan fungsi socket, tetapi bukan stabilitas.
 - Stabilitas didapat dari struktur yg menstabilkan sendi bahu.

Static Stabilizers

- Terdiri atas:
 - Struktur Tulang
 - Labrum
 - GH ligaments (superior, middle, inferior)
 - Kapsul sendi
- Membantu menjaga harmoni
- Tetap berfungsi walaupun ada gangguan saraf maupun otot intrinsik.

Dynamic Stabilizers

- Terdiri atas:
 - Rotator cuff
 - Scapular stabilizers (teres major, rhomboids, serratus anterior, trapezius and levator scapula)
- Tidak bisa berfungsi jika terjadi cedera neuromuskular dan kerusakan otot intrinsik.
- Malfungsi menyebabkan kelonggaran sendi GH dan nyeri bahu.

The Rotator Cuff

- Main function- depress the humeral head against the glenoid & stabilize
- Composed of 4 muscles:
 1. Supraspinatus- abduction helper to deltoid, pulls humeral head towards glenoid
 2. Infraspinatus- external rotation helper, pulls humeral head inferiorly
 3. Teres minor-external rotation helper, pulls humeral head inferiorly
 4. Subscapularis-internal rotation helper to pectoralis and latismus dorsi
- When damaged, humeral had can move upward within the joint 2/2 to unopposed deltoid action



Anamnesis

- Tanyakan umur pasien, tangan yg dominan, olahraga, pekerjaan.
- Tentukan keluhan utama pasien (mis. Nyeri, kelemahan, instabilitas, ROM yg terbatas).
- Bagaimana & kapan masalah dimulai?
- Apakah gejala yg dirasakan terkait dg cedera/kejadian tertentu sebelum gejala timbul?
- Apakah aktivitas/gerakan lengan tertentu menyebabkan gejala timbul?



Anamnesis


- Gejala yg terkait:
 - Instability/longgar (mis. Instabilitas sendi GH di segala arah)
 - Menurunnya kekuatan otot (mis. Impingment, gangguan pd rotator cuff).
 - Bengkak (mis. Trauma akut, robekan pd rotator cuff)
 - Mati rasa/kesemutan (misal gangg pd tl cervical)
 - Hilangnya gerakan/kekakuan (mis. Adhesive capsulitis, dislokasi atau instabilitas sendi GH)
- Terapi apa yg sebelumnya sudah dilakukan, mis: es, panas, obat-obatan.
- Tindakan Intervensi sebelumnya, mis terapi fisik, suntikan, pembedahan.

Pemeriksaan Fisik

- Dilakukan secara sistematis
- Jangan mengabaikan bahu yg sehat (krn hal ini akan memberi informasi sisi normal pasien).
- Perhatikan kedua bahu dan lakukan:
 - Inspeksi
 - Palpasi
 - Periksa ROM: pasif dan aktif
 - Tes kekuatan
 - Tes khusus sesuai indikasi


Inspeksi

- Cari adanya:
 - Bengkak
 - Asimetri
 - Atrofi Otot
 - Adanya bekas luka
 - Ecchymosis



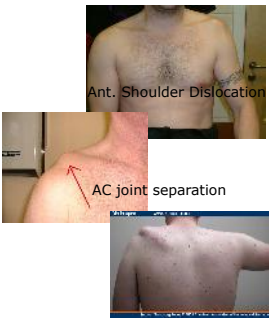
Inspeksi

- Look for:
 - Bengkak
 - Asimetri
 - Atrofi Otot
 - Adanya bekas luka
 - Ecchymosis
 - Distensi vena



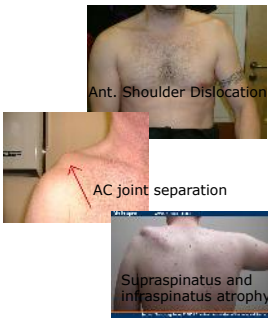
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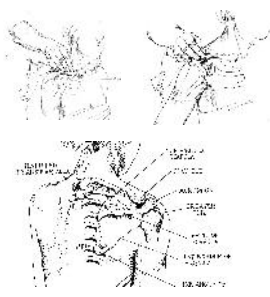
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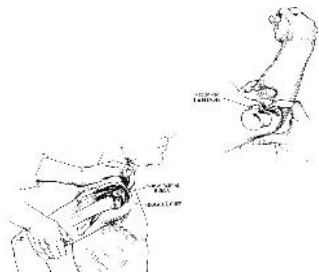
Palpasi

- Sendi Sternoclavicular
- Clavicula
- Prosesus Coracoid
- Acromion
- Sendi Acromioclavicular
- Scapula



Palpasi

- Tendon biceps
- Subacromial Bursa
- Spina Cervical



Kelainan Akut dan Kronis Pada Sendi Bahu



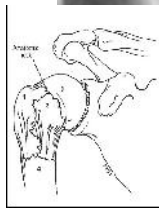
Fraktur Clavicula (patah tulang)

- Umum terjadi, paling sering di bag tengah 1/3 clavícula
- Anamnesis:
 - Jatuh dg menumpu pd tangan atau benturan langsung.
- Pemeriksaan fisik:
 - Nyeri tajam dan/ ada deformitas (gangg. bentuk).
 - Selalu lakukan uji neurovascular.
- Foto Rontgen:
 - Xray- AP and cephalic tilt views
- Penanganan: siku difiksasi bentuk angka 8 selama 2-4 minggu
- Follow up: lihat dim 4-6 minggu dg foto rontgen
- Rujuk ke dokter bedah tulang:
 - Jika fungsi bag distal clavícula terganggu (kena lig sendi AC)



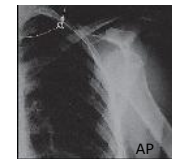
Proximal Humeral Fractures

- Anamnesis:
 - Jatuh menumpu pd tangan atau benturan langsung
- Pemeriksaan fisik
 - Crepitus pd sisi yg terkena
 - Ecchymosis dalam 48 jam setelah cedera.
- Foto Rontgen:
 - AP and Lateral Xray.
- Penanganan:
 - Imobilisasi bahu utk mencegah rotasi eksternal dan abduksi.
- Rujuk ke dokter bedah jika:
 - Fraktur kompleks
 - Melibatkan bag leher
 - Pergeseran lebih dari 1 cm
 - Evaluasi cedera neurovascular



Glenohumeral Dislocation

- Most dislocations are anterior
- Ant. Dislocation:
 - pt holds arm in external rotation/abduction
 - Humeral head palpable anteriorly/ dimple below acromion
- Posterior Dislocation:
 - Arm in abduction/internal rotation
 - Dx often delayed
- Imaging
 - Need two views:
 - AP- can miss posterior dislocation
 - Axillary or Y view



Dislokasi Glenohumeral

- Komplikasi:
 - Dislokasi GH berulang:
 - Cedera Tulang:
 - >50 % ada deformitas-gang di posterolateral caput humeri.
 - Robekan Rotator Cuff
 - 50% usia <40, 80% >60
- Penanganan:
 - Reposisi
 - Latihan ROM exercises lebih awal
 - Operasi jika diperlukan.



Sprain Sendi AC

- Cedera yg biasa tjd pada atlet atau pasien yg aktif.
- Mekanisme:
 - Benturan langsung pd aspek superior bahu.
 - Benturan di sisi samping daerah deltoid
 - Jatuh menumpu pd tangan
- Pemeriksaan Fisik:
 - Bengkak terlokalisir & nyeri di atas sendi AC.
 - Selalu periksa pasien dalam posisi duduk.
 - Palpasi deformitas antara acromion & clavícula - mengindikasikan cedera yg lebih berat.
- Rontgen:
 - Xray:
 - AP- confirms dx
 - Axillary- if suspect grade 4-6 injury



Klasifikasi Cedera AC

- Grade 3 atau lebih besar – rujuk ke dokter bedah utk perbaikan lebih lanjut.

Ligaments or joint	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
Acromioclavicular Ligaments	Sprained	Disrupted	Disrupted	Disrupted	Disrupted	Disrupted
Acromioclavicular joint	Intact	Disrupted or slight vertical separation	Disrupted	Disrupted	Separated	Ruptured
Coracoclavicular Ligament	Intact	Sprained	Disrupted or slight vertical separation	Disrupted	Disrupted	Disrupted

Robekan Rotator Cuff

- Paling sering dialami pd usia di atas 40 tahun. Anamnesis:
 - Pasien yg lebih muda → terkait dg trauma
 - Usia pertengahan → impingement kronik mengakibatkan ruptur rotator cuff.
- Rontgen:
 - AP view GH joint- may show calcific tendonitis of cuff +/- superior migration of humeral head → should be f/u with further imaging
 - MRI= gold standard
- Penanganan:
 - Surgical repair in young and selected older patients within 3 weeks of injury preferably
 - Rehabilitasi pasien yg tidak perlu operasi.

Impingement Syndrome

- Mekanisme:
 - Tendon rotator cuff terkena impinged antara lengkung coracoacromial dan abduksi humerus.
- Supraspinatus paling sering terganggu.
- Ada 2 jenis:
 - Primer
 - Pasien lebih tua, overuse kronis dan degenerasi
 - Sekunder
 - Usia lebih muda, atlet pelembar, instabilitas GH menyebabkan impingment.

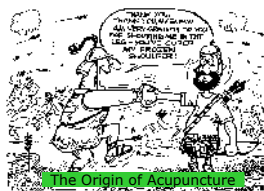


Impingement Syndrome

- Anamnesis:
 - Nyeri di atas bahu anterolateral, bisa menjalar ke siku.
 - Dipicu karena aktivitas yg melibatkan gerakan overhead, terasa memburuk di malam hari.
- PE: +Hawkins, + Neer
- Penanganan:
 - Konservatif:
 - Fase akut: NSAIDS, Injeksi, es, istirahat
 - Mengatasi nyeri: latihan penguatan Rotator cuff
 - Xrays- get if 2-3 mo of conservative Rx fails- may show hooked acromion, AC spurring.
 - MRI sesuai indikasi
 - Pembedahan Operasi jika terapi konservatif gagal.

Frozen Shoulder

- Mekanisme: penebalan dan kontraktur kapsul di sekitar sendi GH.
- Etiologi:
 - Imobilitas (operasi, nyeri)
 - Autoimun
- Imaging:
 - X-rays- normal
 - Arthrography- constriction of joint capsule
- Penanganan:
 - Physical therapy
 - Terapi nyeri (NSAIDS)
 - Corticosteroids occasionally
 - Surgical referral if conservative fails



Biceps Tendonitis

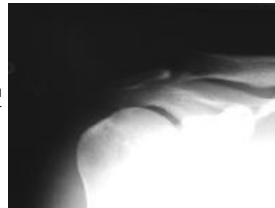
- Inflammation of sheath around long head of biceps
- Hx:
 - Pain and tenderness in bicipital groove
 - Often associated with impingement syndrome or rotator cuff tear
- PE: +Yergason's, +Speeds
- Rx:
 - Conservative: Rest, ice, NSAIDS, Injection
 - Surgical: Transfer of tendon

Labral injury

- SLAP lesion (Superior Labrum Anterior Posterior) common in throwing athletes
- HX: Painful shoulder that clicks or pops with motion
- PE: +clunk test, +O'Brien's, +/-laxity signs
- Rx:
 - Often will need surgical repair, especially if athlete.

Osteolysis of Distal Clavicle

- If atraumatic, most common in weight lifters
- Begins as stress fx & bone remodeling cannot occur due to continual stress on joint
- Hx:
 - Dull Pain over AC joint
 - worst in beginning of exercise period
 - Aggravated by abduction of shoulder
- Dx:
 - Xrays- osteopenia and lucency of distal clavicle
- RX:
 - D/C load-bearing activity
 - Surgical: Resection of distal clavicle



Case 1

- 42 yo Male comes to your office complaining of Rt shoulder pain. He does not remember any specific injury, but has been playing tennis a lot over the past 4 months and tells you that "opposing players no longer fear his serve". It is difficult and painful for him to reach overhead and behind him. Even rolling onto his shoulder in bed is painful.
- PE shows full ROM, but with discomfort at end ranges of Flexion, abduction and internal rotation. There is significant pain when you place the shoulder in position of 90 degrees of flexion and then internally rotate. There is also moderate weakness on abduction and external rotation. The rest of the MS exam is normal.

1. The most likely diagnosis is:

- Acromioclavicular sprain
- Rotator Cuff tear
- Adhesive Capsulitis
- Rotator Cuff impingement
- Cervical Radiculopathy

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2. The best initial treatment is:

- Corticosteroid injection
- Arthroscopic subacromial decompression
- Strengthening and ROM exercises
- Elbow sling
- Cervical collar

2. The best initial treatment is:

- a) Corticosteroid injection
- b) Arthroscopic subacromial decompression
- c) Strengthening and ROM exercises
- d) Elbow sling
- e) Cervical collar

3. Predisposing factors for this problem include:

- a) Repetitive motion of the shoulder above the horizontal plane
- b) Hooked acromion
- c) Acromioclavicular spurring
- d) Shoulder instability
- e) All of the above

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References

1. Woodward, T.W & Best, T.M; *The Painful Shoulder: Part I. Clinical Evaluation. American Family Physician.* May, 15 2006;60:3079-88.
2. Woodward, T.W & Best, T.M; *The Painful Shoulder: Part II. Acute and Chronic Disorders. American Family Physician.* June 1, 2000; 61:3291-300. <http://www.aafp.org/aafp/20000601/3291.html>
3. Hoppenfield, M. *Physical Examination of the Spine and Extremities.* New Jersey:Prentice Hall 1976.
4. Thompson, J.C. *Netter's Concise Atlas of Orthopedic Anatomy.* Philadelphia:Elsevier Inc 2002

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