

## Welcome to Our Survey

**This survey contains 54 randomized, short clinical vignettes describing a patient who is presenting with signs and symptoms of cuff tear arthropathy. Assumptions are listed at the top of each page.**

**Each vignette has the same 3 questions:**

- 1) Grade the radiographs according to Seebauer**
- 2) Grade the radiographs according to Hamada**
- 3) Select a treatment**

**Primary Objectives:**

- Determine the demographics, signs, symptoms, and radiographic features that impact clinical decision making**
- Determine 1) the reliability of the Seebauer and Hamada grading systems 2) whether or not the grading systems correlate with clinical decision making**

**Thank you for your time!**

## Case 1

**An active 30 y.o. who works as a manual laborer presents with mild signs and symptoms (only during strenuous activities)**

\* 1. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 2. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 3. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 2

**A 30 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with mild signs and symptoms (only during strenuous activities)**

\* 4. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 5. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 6. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 3

**An inactive 30 y.o. who is very low demand with their shoulder presents with mild signs and symptoms (only during strenuous activities)**

\* 7. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 8. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 9. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 4

**An active 30 y.o. who works as a manual laborer presents with moderate signs and symptoms  
(predominant symptoms that limit most things)**

\* 10. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 11. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 12. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 5

**A 30 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with moderate signs and symptoms (predominant symptoms that limit most things)**

\* 13. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 14. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 15. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 6

**An inactive 30 y.o. who is very low demand with their shoulder presents with moderate signs and symptoms (predominant symptoms that limit most things)**

\* 16. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 17. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 18. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 7

**An active 30 y.o. who works as a manual laborer presents with severe signs and symptoms  
(constant)**

\* 19. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 20. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 21. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty



## Case 8

**A 30 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with severe signs and symptoms (constant)**

\* 22. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 23. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 24. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 9

**An inactive 30 y.o. who is very low demand with their shoulder presents with severe signs and symptoms (constant)**

\* 25. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 26. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 27. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 10

**An active 45 y.o. who works as a manual laborer presents with mild signs and symptoms (only during strenuous activities)**

\* 28. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 29. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 30. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 11

**A 45 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with mild signs and symptoms (only during strenuous activities)**

\* 31. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 32. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 33. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An inactive 45 y.o. who is very low demand with their shoulder presents with mild signs and symptoms (only during strenuous activities)**

\* 34. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 35. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 36. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 13

**An active 45 y.o. who works as a manual laborer presents with moderate signs and symptoms  
(predominant symptoms that limit most things)**

\* 37. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 38. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 39. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 14

**A 45 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with moderate signs and symptoms (predominant symptoms that limit most things)**

\* 40. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 41. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 42. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 15

**An inactive 45 y.o. who is very low demand with their shoulder presents with moderate signs and symptoms (predominant symptoms that limit most things)**

\* 43. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 44. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 45. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty



## Case 16

**An active 45 y.o. who works as a manual laborer presents with severe signs and symptoms (constant)**

\* 46. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 47. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 48. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 17

**A 45 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with severe signs and symptoms (constant)**

\* 49. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 50. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 51. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 18

**An inactive 45 y.o. who is very low demand with their shoulder presents with severe signs and symptoms (constant)**

\* 52. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 53. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 54. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 19

**An active 65 y.o. who works as a manual laborer presents with mild signs and symptoms (only during strenuous activities)**

\* 55. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 56. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 57. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 20

**A 65 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with mild signs and symptoms (only during strenuous activities)**

\* 58. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 59. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 60. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 21

**An inactive 65 y.o. who is very low demand with their shoulder presents with mild signs and symptoms (only during strenuous activities)**

\* 61. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 62. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 63. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An active 65 y.o. who works as a manual laborer presents with moderate signs and symptoms  
(predominant symptoms that limit most things)**

\* 64. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 65. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 66. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 23

**A 65 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with moderate signs and symptoms (predominant symptoms that limit most things)**

\* 67. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 68. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 69. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty



**An inactive 65 y.o. who is very low demand with their shoulder presents with moderate signs and symptoms (predominant symptoms that limit most things)**

\* 70. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 71. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 72. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An active 65 y.o. who works as a manual laborer presents with severe signs and symptoms  
(constant)**

\* 73. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 74. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 75. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**A 65 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with severe signs and symptoms (constant)**

\* 76. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 77. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 78. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 27

**An inactive 65 y.o. who is very low demand with their shoulder presents with severe signs and symptoms (constant)**

\* 79. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 80. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 81. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An active 30 y.o. who works as a manual laborer presents with mild signs and symptoms (only during strenuous activities)**

\* 82. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 83. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 84. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 29

**A 30 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with mild signs and symptoms (only during strenuous activities)**

\* 85. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 86. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 87. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An inactive 30 y.o. who is very low demand with their shoulder presents with mild signs and symptoms (only during strenuous activities)**

\* 88. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 89. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 90. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 31

**An active 30 y.o. who works as a manual laborer presents with moderate signs and symptoms  
(predominant symptoms that limit most things)**

\* 91. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 92. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 93. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty



## Case 32

**A 30 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with moderate signs and symptoms (predominant symptoms that limit most things)**

\* 94. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 95. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 96. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An inactive 30 y.o. who is very low demand with their shoulder presents with moderate signs and symptoms (predominant symptoms that limit most things)**

\* 97. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 98. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 99. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An active 30 y.o. who works as a manual laborer presents with severe signs and symptoms  
(constant)**

\* 100. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 101. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 102. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**A 30 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with severe signs and symptoms (constant)**

\* 103. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 104. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 105. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An inactive 30 y.o. who is very low demand with their shoulder presents with severe signs and symptoms (constant)**

\* 106. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 107. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 108. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An active 45 y.o. who works as a manual laborer presents with mild signs and symptoms (only during strenuous activities)**

\* 109. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 110. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 111. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**A 45 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with mild signs and symptoms (only during strenuous activities)**

\* 112. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 113. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 114. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An inactive 45 y.o. who is very low demand with their shoulder presents with mild signs and symptoms (only during strenuous activities)**

\* 115. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 116. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 117. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty



**An active 45 y.o. who works as a manual laborer presents with moderate signs and symptoms  
(predominant symptoms that limit most things)**

\* 118. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 119. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 120. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 41

**A 45 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with moderate signs and symptoms (predominant symptoms that limit most things)**

\* 121. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 122. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 123. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An inactive 45 y.o. who is very low demand with their shoulder presents with moderate signs and symptoms (predominant symptoms that limit most things)**

\* 124. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 125. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 126. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An active 45 y.o. who works as a manual laborer presents with severe signs and symptoms  
(constant)**

\* 127. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 128. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 129. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**A 45 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with severe signs and symptoms (constant)**

\* 130. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 131. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 132. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An inactive 45 y.o. who is very low demand with their shoulder presents with severe signs and symptoms (constant)**

\* 133. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 134. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 135. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An active 65 y.o. who works as a manual laborer presents with mild signs and symptoms (only during strenuous activities)**

\* 136. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 137. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 138. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 47

**A 65 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with mild signs and symptoms (only during strenuous activities)**

\* 139. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 140. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 141. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty



**An inactive 65 y.o. who is very low demand with their shoulder presents with mild signs and symptoms (only during strenuous activities)**

\* 142. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 143. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 144. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An active 65 y.o. who works as a manual laborer presents with moderate signs and symptoms  
(predominant symptoms that limit most things)**

\* 145. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 146. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 147. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 50

**A 65 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with moderate signs and symptoms (predominant symptoms that limit most things)**

\* 148. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 149. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 150. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 51

**An inactive 65 y.o. who is very low demand with their shoulder presents with moderate signs and symptoms (predominant symptoms that limit most things)**

\* 151. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 152. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 153. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An active 65 y.o. who works as a manual laborer presents with severe signs and symptoms  
(constant)**

\* 154. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 155. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 156. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

## Case 53

**A 65 y.o. who works a desk job and enjoys playing rec basketball and lifting weights presents with severe signs and symptoms (constant)**

\* 157. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 158. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 159. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty

**An inactive 65 y.o. who is very low demand with their shoulder presents with severe signs and symptoms (constant)**

\* 160. Please grade the radiographs according to Seebauer

- Type 1A-Centered, Stable:** minimal superior migration, C-A arch acetabularization and femoralization of humeral head
- Type 1B-Centered, Medialized:** minimal superior migration, medial glenoid erosion, C-A arch acetabularization and femoralization of humeral head
- Type 2A-Decentered, Limited Stable:** superior migration, superior-medial erosion, extensive C-A arch acetabularization and femoralization of humeral head
- Type 2B-Decentered, Unstable:** anterior-superior escape, absent stabilization, C-A arch and anterior structures deficient

\* 161. Please grade the radiographs according to Hamada

- Grade 1:** acromio-humeral interval (AHI) > 6mm
- Grade 2:** acromio-humeral interval (AHI) 5mm or less
- Grade 3:** grade 2 with acetabularization of acromion
- Grade 4:** grade 3 with narrowing of gleno-humeral joint
- Grade 5:** grade 4 with bony destruction and humeral head collapse

\* 162. Please select a treatment

- non-operative (includes medications, injections, physical therapy, or watchful waiting)
- arthroscopic treatment
- hemiarthroplasty
- reverse shoulder arthroplasty