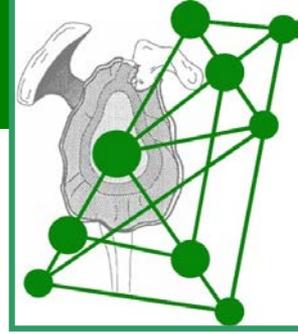


Fysiotherapie bij degeneratieve RC letsels

door Gerard Koel, FT / MT / MSc / docent





INHOUD

1. Epidemiologie en beloop RC letsels
2. Signs & symptoms van RC letsels
3. FT handelen & de effectiviteit bij RC letsels
4. Prognostische factoren

Epidemiologie en beloop RC letsels

1. Tempelhof S, Rupp S, Seil R. Age-related prevalence of rotator cuff tears in asymptomatic shoulders. *J Shoulder Elbow Surg.* augustus 1999;8(4):296–9.
 2. Yamaguchi K, Tetro AM, Blam O, Evanoff BA, Teefey SA, Middleton WD. Natural history of asymptomatic rotator cuff tears: a longitudinal analysis of asymptomatic tears detected sonographically. *J Shoulder Elbow Surg.* juni 2001;10(3):199–203.
 3. Yamamoto A, Takagishi K, Osawa T, Yanagawa T, Nakajima D, Shitara H, e.a. Prevalence and risk factors of a rotator cuff tear in the general population. *J Shoulder Elbow Surg.* januari 2010;19(1):116–20.
 4. Yamamoto A, Takagishi K, Kobayashi T, Shitara H, Osawa T. Factors involved in the presence of symptoms associated with rotator cuff tears: a comparison of asymptomatic and symptomatic rotator cuff tears in the general population. *J Shoulder Elbow Surg.* oktober 2011;20(7):1133–7.
 5. Safran O, Schroeder J, Bloom R, Weil Y, Milgrom C. Natural history of nonoperatively treated asymptomatic rotator cuff tears in patients 60 years old or younger. *Am J Sports Med.* 2011 (39):710–4.
 6. Fucentese SF, von Roll AL, Pfirrmann CWA, Gerber C, Jost B. Evolution of nonoperatively treated symptomatic isolated full-thickness supraspinatus tears. *J Bone Joint Surg Am.* 2 mei 2012;94(9):801–8.
 7. Tashjian RZ. Epidemiology, natural history, and indications for treatment of rotator cuff tears. *Clin Sports Med.* oktober 2012;31(4):589–604.
 8. Moosmayer S, Tariq R, Stiris M, Smith H-J. The natural history of asymptomatic rotator cuff tears: a three-year follow-up of fifty cases. *J Bone Joint Surg Am.* 17 juli 2013;95(14):1249–55.
 9. Teunis T, Lubberts B, Reilly BT, Ring D. A systematic review and pooled analysis of the prevalence of rotator cuff disease with increasing age. *J Shoulder Elbow Surg.* december 2014;23(12):1913–21.
- Plus presentaties SECEC congress Milaan September 2015.**

J Shoulder Elbow Surg (2014) 23, 1913-1921



ELSEVIER

REVIEW ARTICLE

A systematic review and pooled analysis of the prevalence of rotator cuff disease with increasing age

Teun Teunis, MD, Bart Lubberts, BSc, Brian T. Reilly, BSc, David Ring, MD, PhD*

Orthopaedic Hand and Upper Extremity Service, Massachusetts General Hospital–Harvard Medical School, Boston, MA, USA

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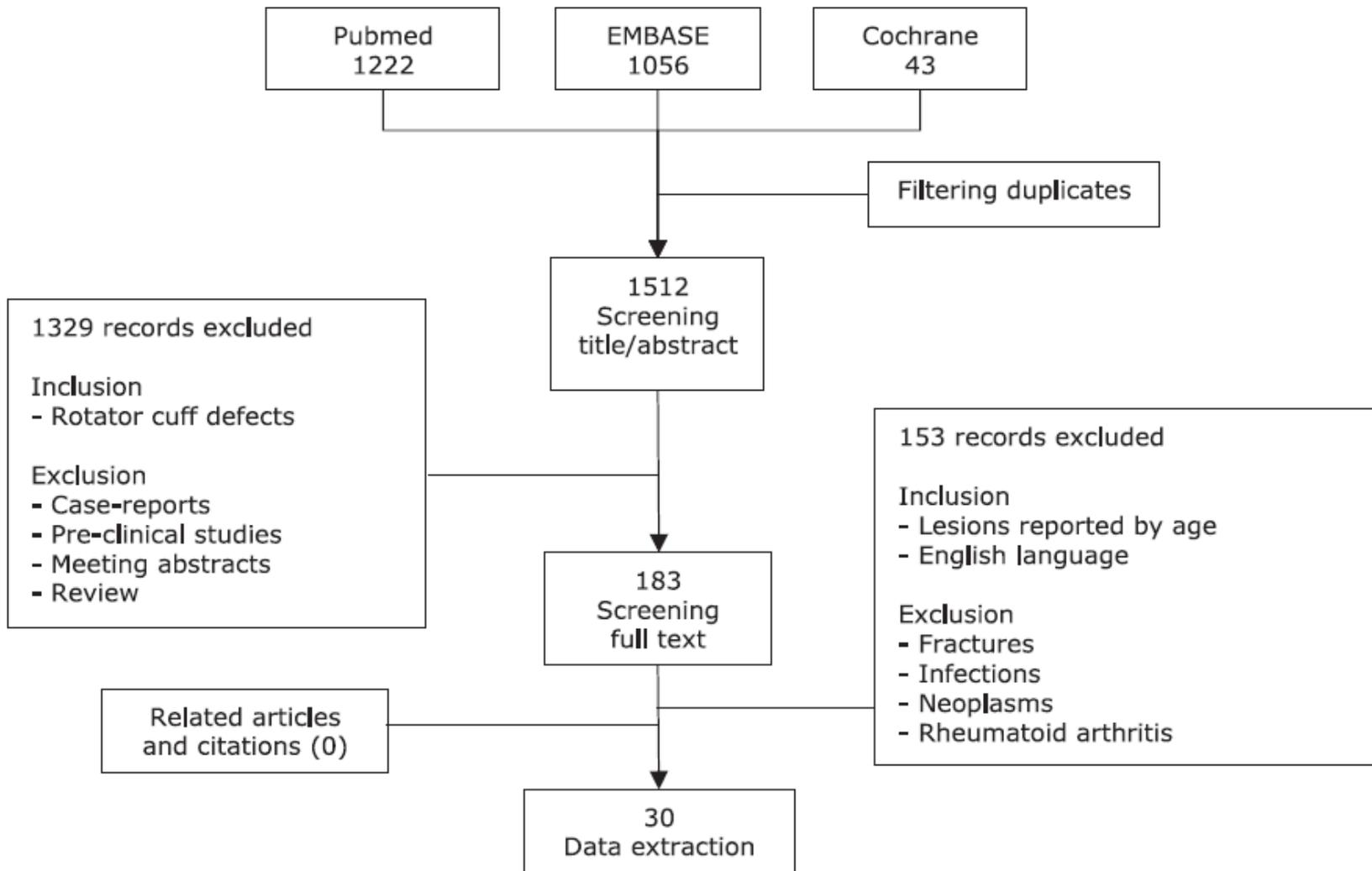


Figure 1 Flow chart of study selection.

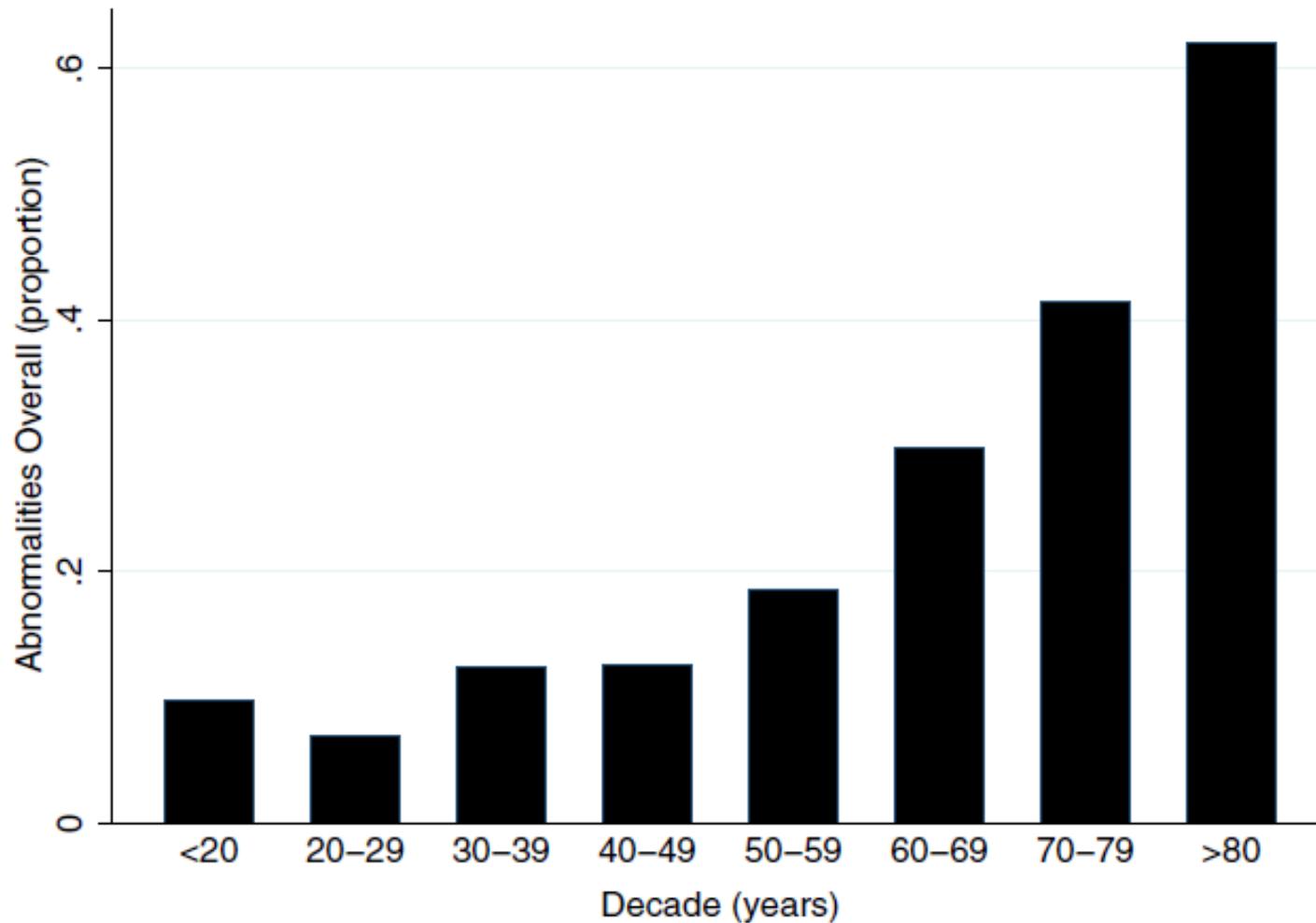
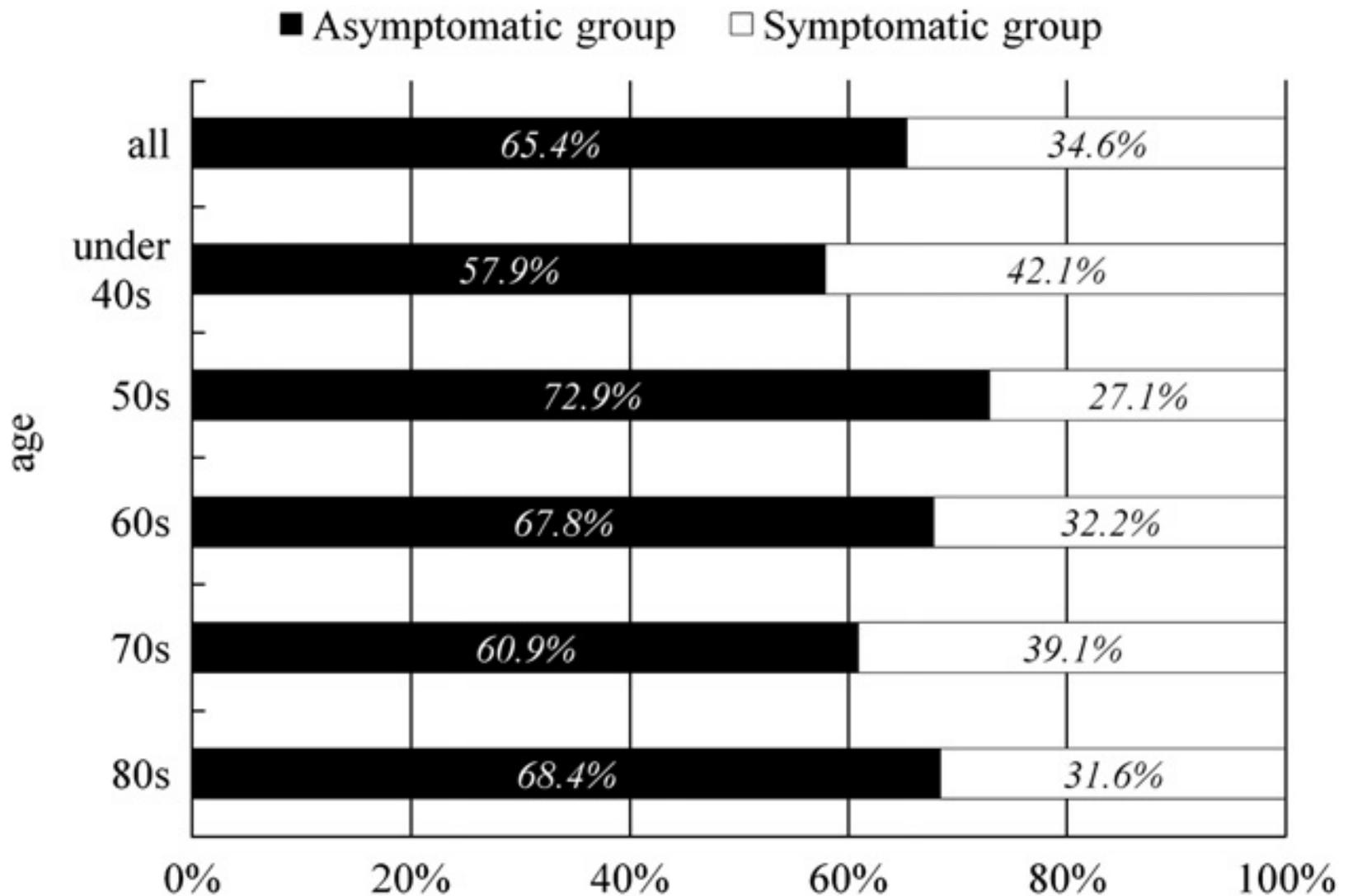
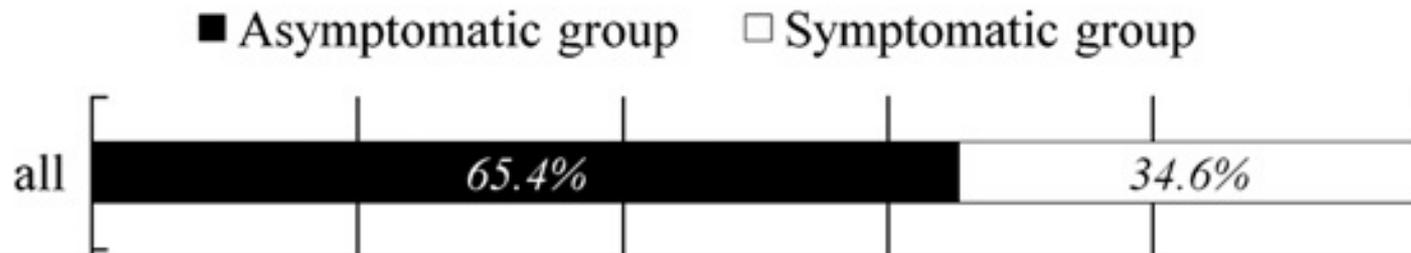


Figure 2 Histogram of rotator cuff abnormalities by age group across all studies.



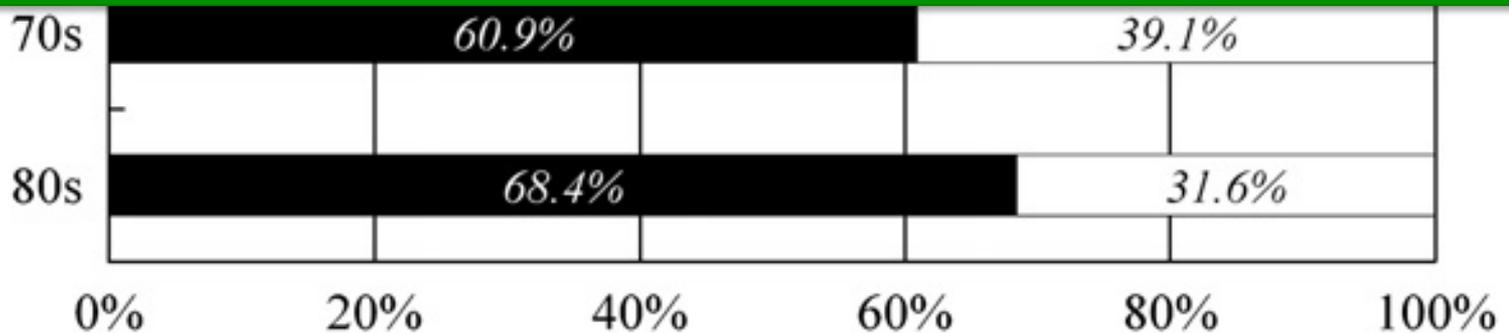
Yamamoto A, Takagishi K, Kobayashi T, Shitara H, Osawa T. Factors involved in the presence of symptoms associated with rotator cuff tears: a comparison of asymptomatic and symptomatic rotator cuff tears in the general population. J Shoulder Elbow Surg. oktober 2011;20(7):1133–7.



DUS:

2 / 3 van de personen met een beschadigde RC: GEEN SCHOUDERPIJN = a-symptomatisch

1 / 3 van de personen met een beschadigde RC: WEL PERIODEN MET SCHOUDERPIJN



Epidemiologie en beloop RC letsels

1. Tempelhof S, Rupp S, Seil R. Age-related prevalence of rotator cuff tears in asymptomatic shoulders. J Shoulder Elbow Surg. augustus 1999;8(4):296–9.
2. Yamaguchi K, Tetro AM, Blam O, Evanoff BA, Teefey SA, Middleton WD. Natural history of asymptomatic rotator cuff tears: a longitudinal analysis of asymptomatic tears detected sonographically. J Shoulder Elbow Surg. juni 2001;10(3):199–203.
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8. Dunn WR, Kuhn JE, Sanders R, An Q, Baumgarten KM, Bishop JY, e.a. Symptoms of pain do not correlate with rotator cuff tear severity: a cross-sectional study of 393 patients with a symptomatic atraumatic full-thickness rotator cuff tear. J Bone Joint Surg Am. 21 mei 2014;96(10):793–800.
9. Teunis T, Lubberts B, Reilly BT, Ring D. A systematic review and pooled analysis of the prevalence of rotator cuff disease with increasing age. J Shoulder Elbow Surg. december 2014;23(12):1913–21.

Plus presentaties SECEC congress

Milaan September 2015.

COMPARING SURGICAL REPAIR WITH CONSERVATIVE TREATMENT FOR DEGENERATIVE ROTATOR CUFF TEARS: A RANDOMIZED CONTROLLED TRIAL

Okke Lambers Heerspink, Jos van Raay, Rinco Koorevaar, Pepijn
van Erden, Esther van 't Riet, Inge van den Akker-Scheek, Ron
Diercks



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RESULTS

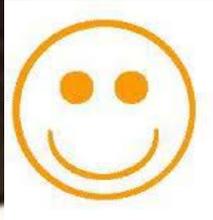
<i>One year follow up</i>	Surgery n= 20	Conservative n=25	P-value
Constant Murley (CMS)	81.9 (15.6)	73.7 (18.4)	0.08
DSST	11.0 (2.8)	9.7 (3.6)	0.13
VAS pain	2.2 (1.9)	3.2 (1.6)	0.04
VAS disability	2.1 (1.7)	3.5 (2.3)	0.02

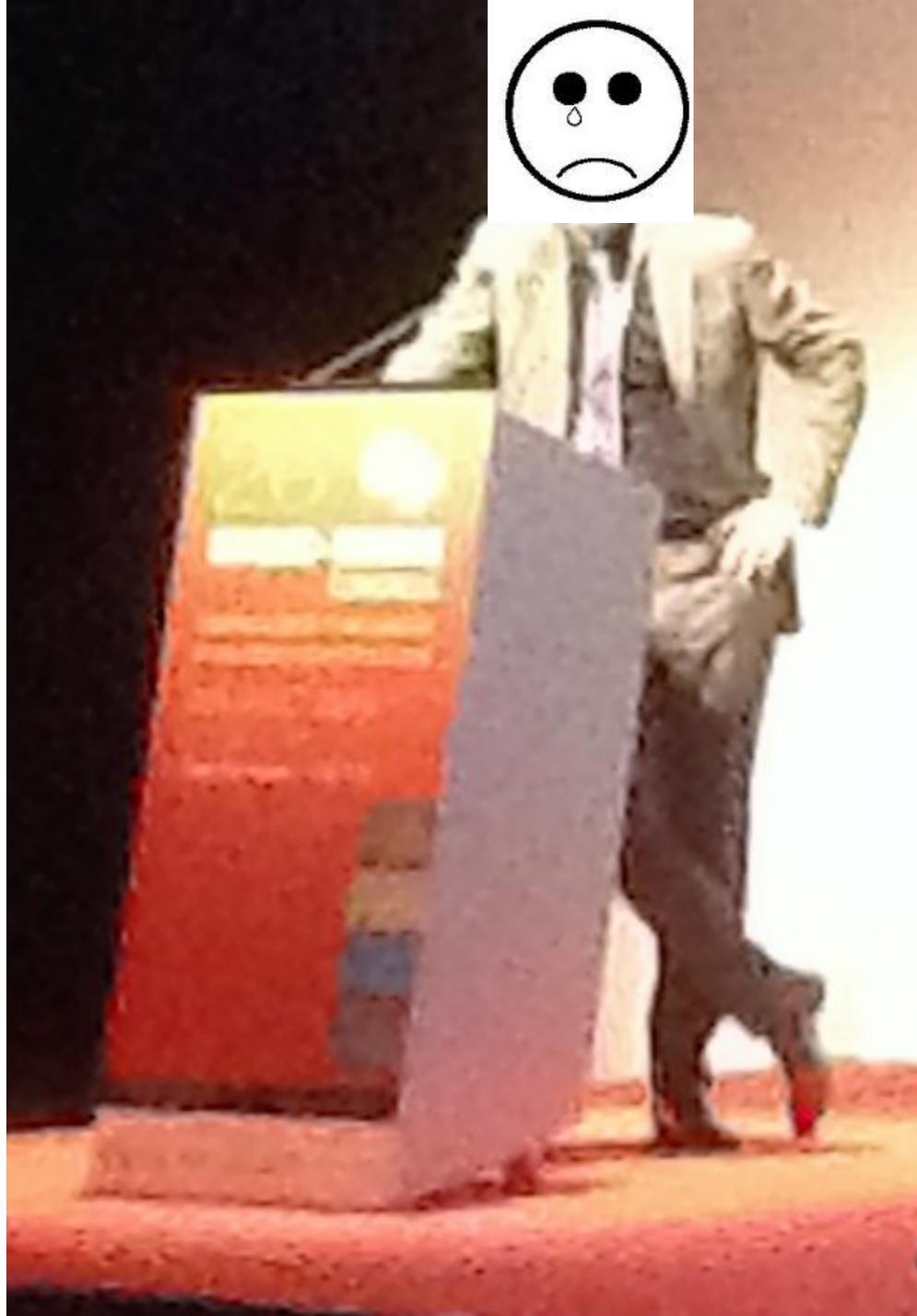


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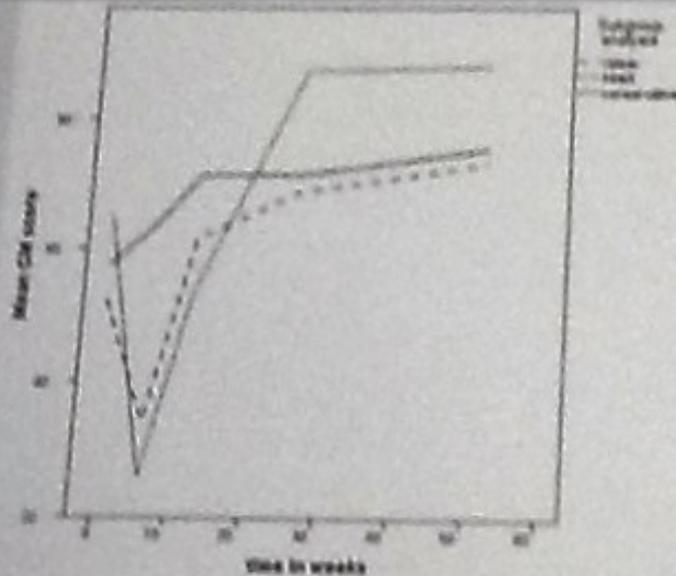
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RESULTS

Rearr rate at one year follow up: 73.3%



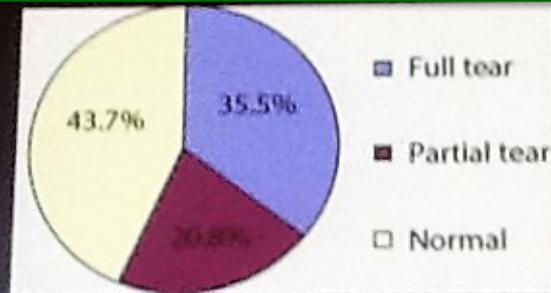
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Jay Keener 'from the States' met 6 – 10 % re-tears !!
So not everything from the USA is more and bigger.

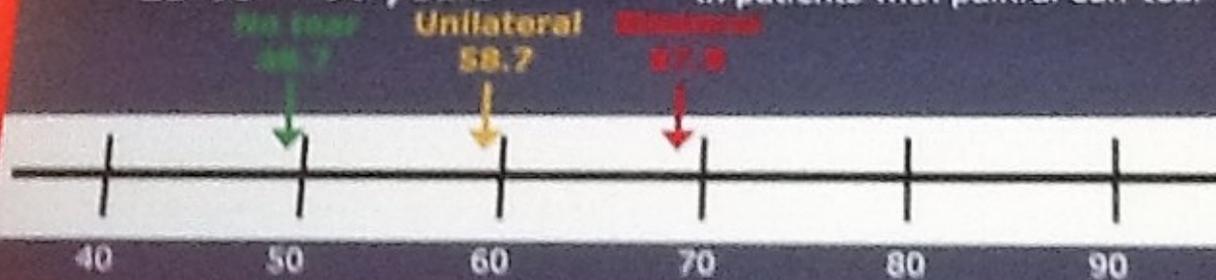
- Degenerative rotator cuff tears are common

- Etiology related to age

- LD 50 = 66 years

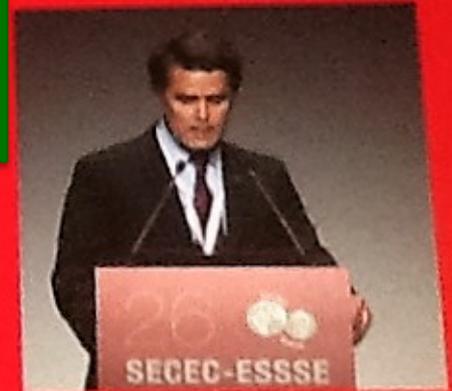


Contralateral shoulder US
in patients with painful cuff tear



Washington University Physicians • Barnes-Jewish Hospital

Yamaguchi et al J&JS 2005



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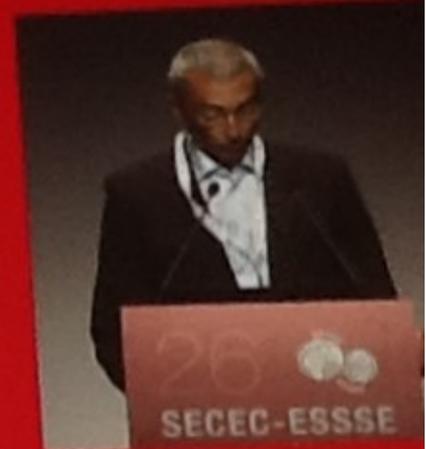
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Methods

- 44 RC tears
- Tear size ≤ 3 cm, Goutallier ≤ 1
- All treated by physiotherapy
- Satisfactory result at 4 month control
- Still unrepaired after 8.7 [8.2-11.0] years

Moosmayer S, Tariq R, Stiris M, Smith H-J. The natural history of asymptomatic rotator cuff tears: a three-year follow-up of fifty cases. J Bone Joint Surg Am. 17 juli 2013;95(14):1249–55.

At SECEC in Milano 2015 the 8 – 9 years follow-up.



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Case Number

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

-10.0

0

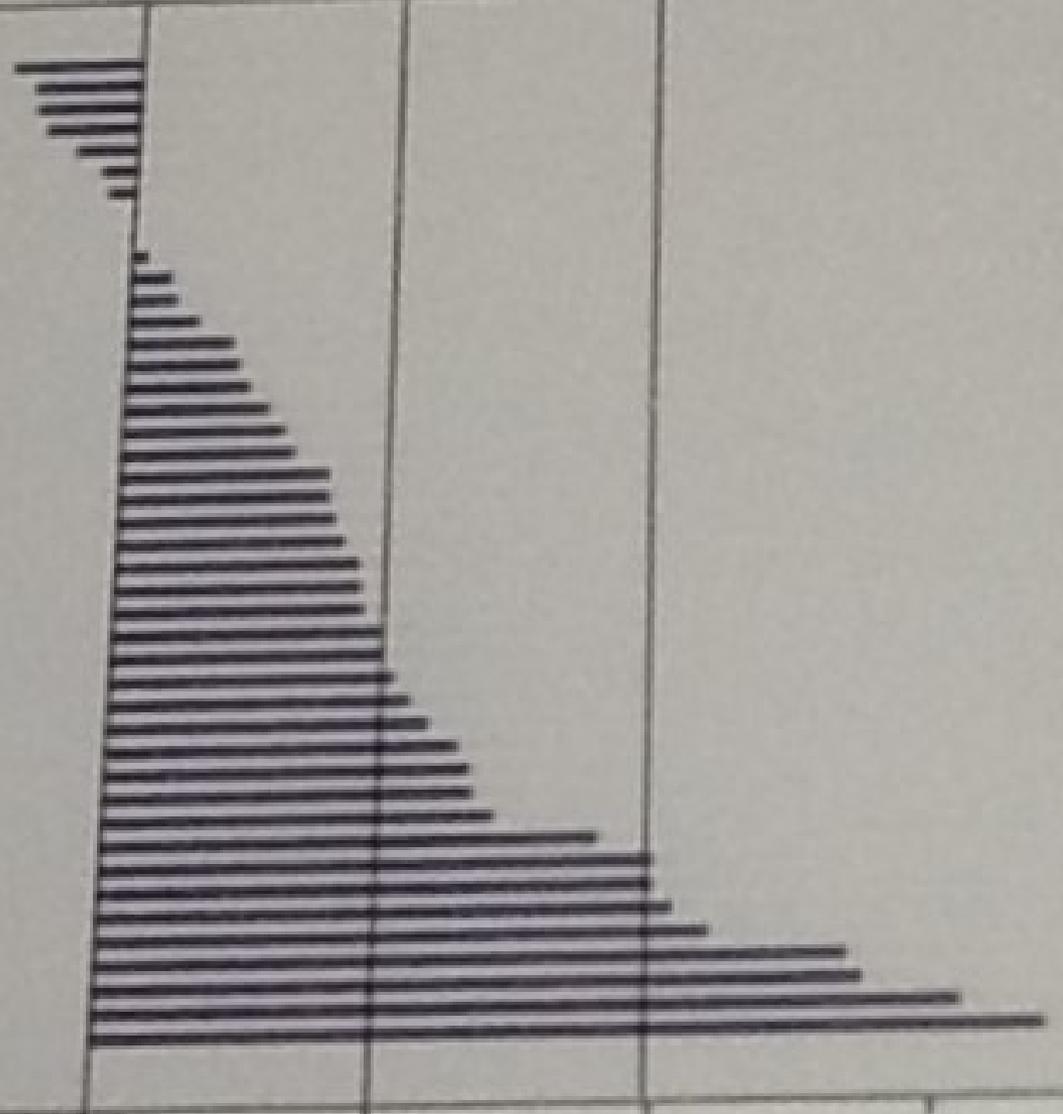
10.0

20.0

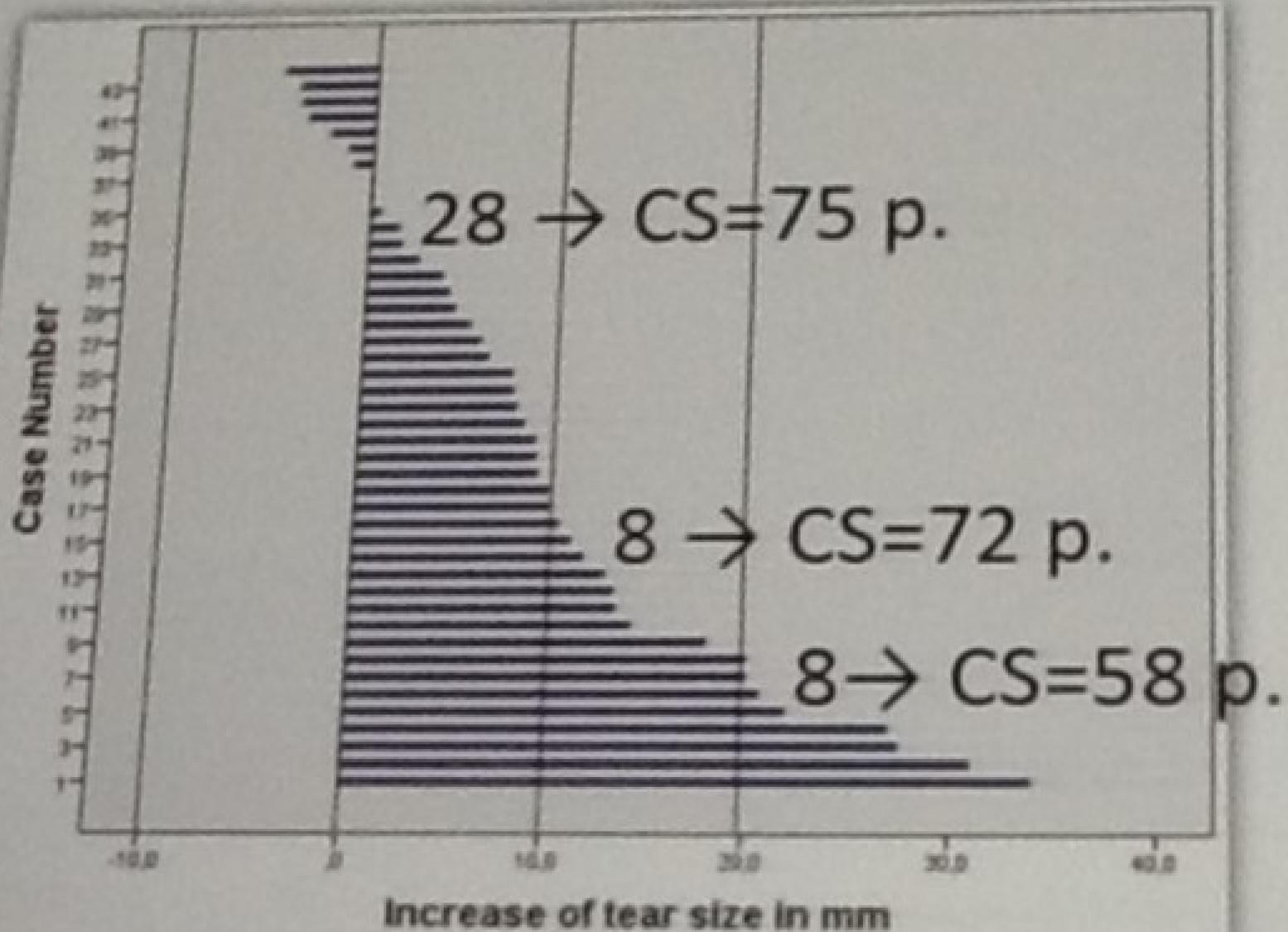
30.0

40.0

Increase of tear size in mm



Tear size increase versus CS



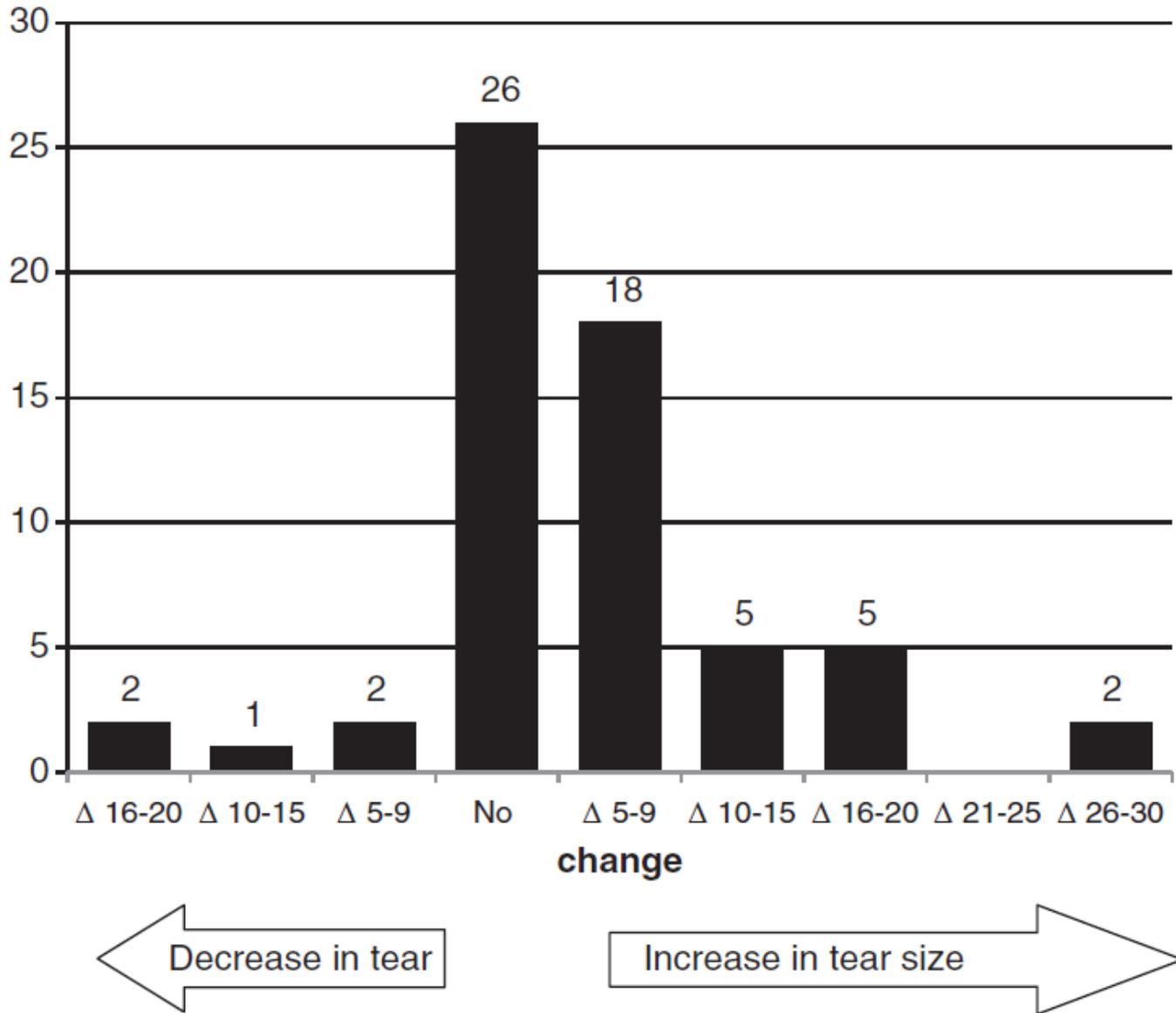
	Tear size increase		P value
	<2 cm (n=36)	≥2 cm (n=8)	
Constant score (points)	74	58	0.03
ASES score (points)	81	65	0.05
VAS pain (cm)	1.9	4.3	0.02

Dus:

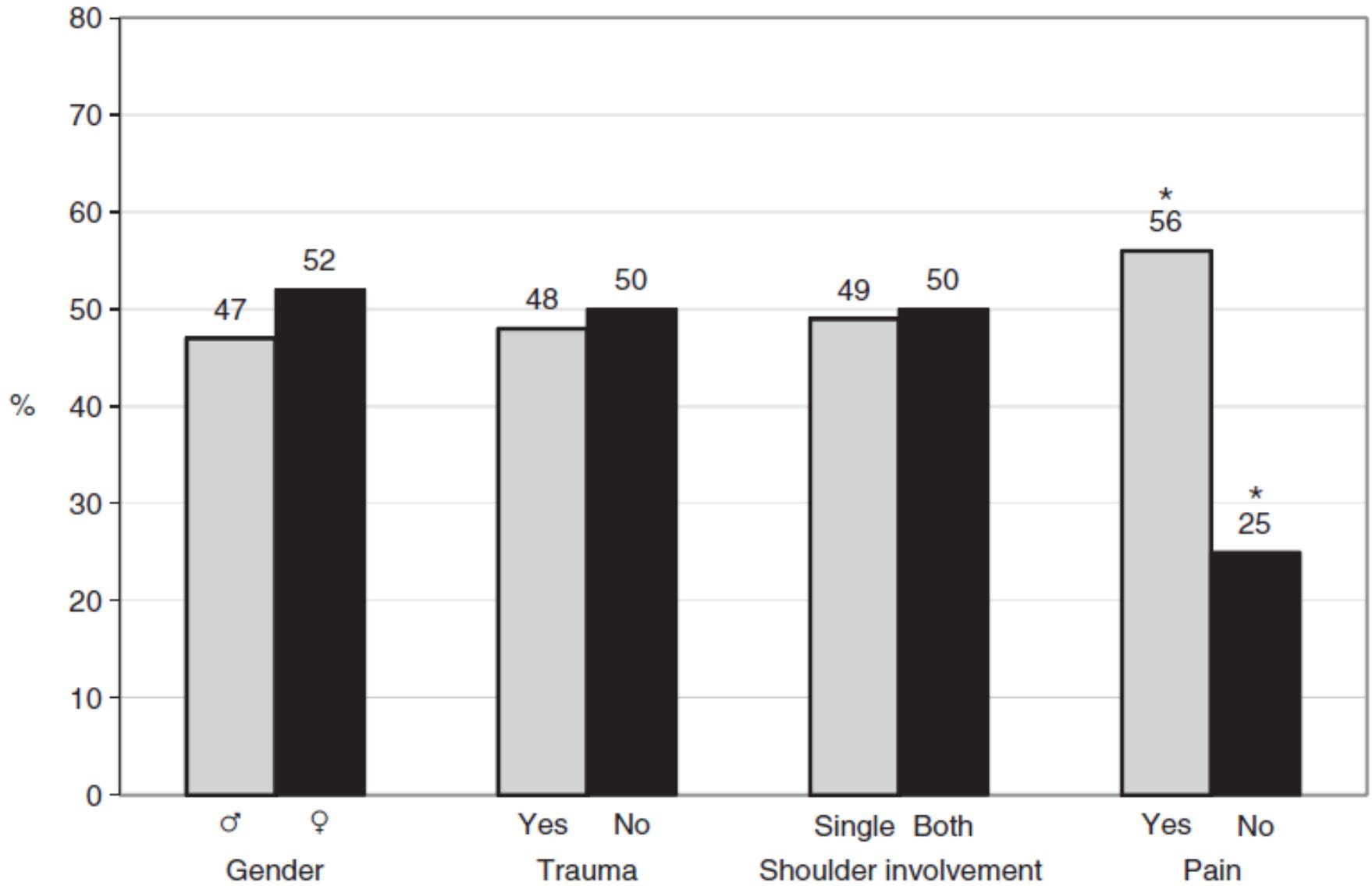
- Langzaam toenemende RC rupturen >> weinig relevante en significante veranderingen
- Sterk toenemende RC rupturen (>2cm) >> wel relevante en significante veranderingen

Conclusion

- The majority of unrepaired RCTs increased in tear size over an 8-year period
- Increases were moderate in most cases
- Correlation to an inferior clinical outcome was only found for cases with large increases (18%)



Safran O, Schroeder J, Bloom R, Weil Y, Milgrom C. Natural history of nonoperatively treated asymptomatic rotator cuff tears in patients 60 years old or younger. *Am J Sports Med*, 2011 (39):710-4.

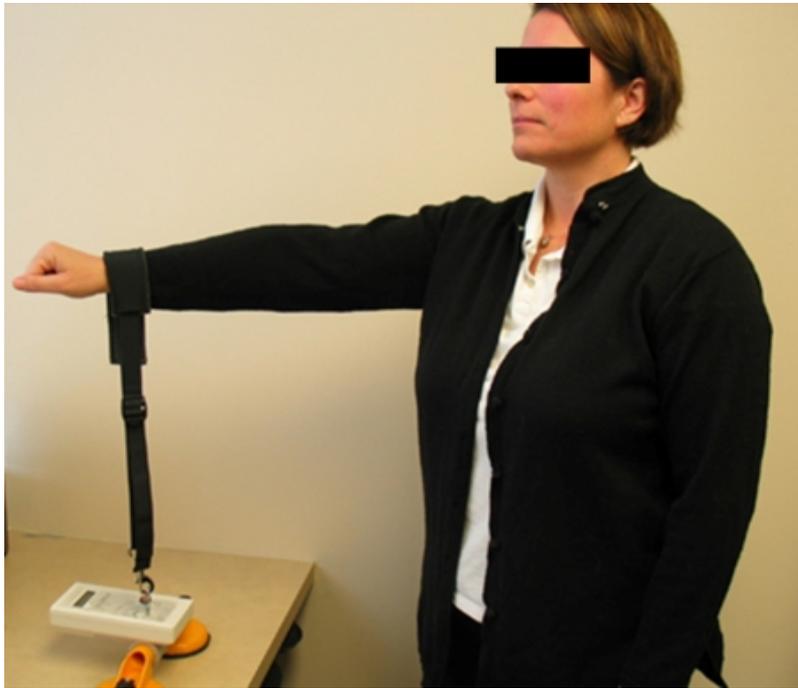


Safran O, Schroeder J, Bloom R, Weil Y, Milgrom C. Natural history of nonoperatively treated asymptomatic rotator cuff tears in patients 60 years old or younger. *Am J Sports Med*, 2011 (39):710-4.

Signs & symptoms van RC letsels

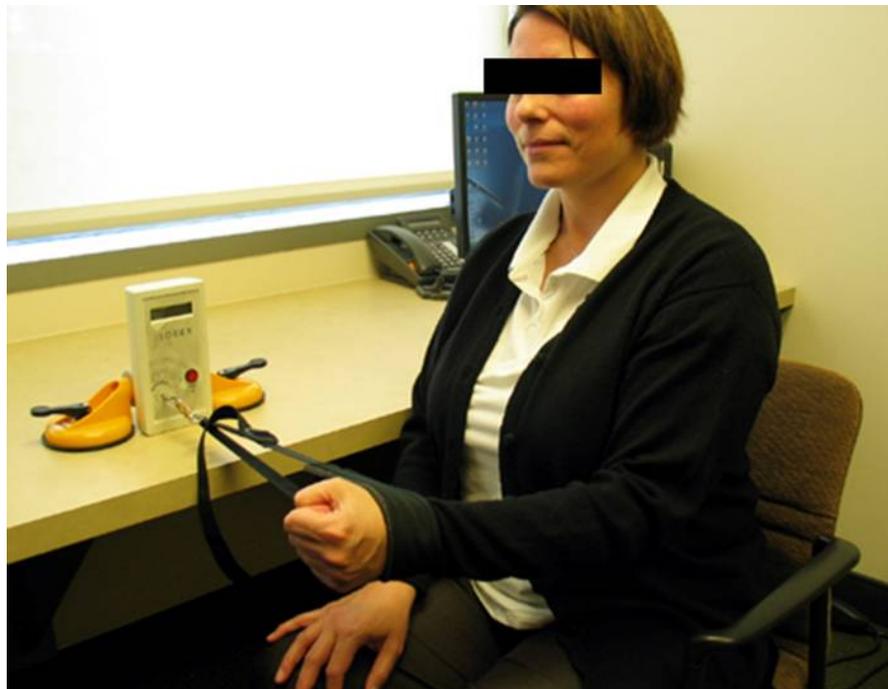
1. Miller CA, Forrester GA, Lewis JS. The validity of the lag signs in diagnosing full-thickness tears of the rotator cuff: a preliminary investigation. *Arch Phys Med Rehabil.* juni 2008;89(6):1162–8.
2. Keener JD, Wei AS, Kim HM, Steger-May K, Yamaguchi K. Proximal humeral migration in shoulders with symptomatic and asymptomatic rotator cuff tears. *J Bone Joint Surg Am.* juni 2009;91(6):1405–13.
3. Bak K, Sørensen AKB, Jørgensen U, Nygaard M, Krarup AL, Thune C, e.a. The value of clinical tests in acute full-thickness tears of the supraspinatus tendon: does a subacromial lidocaine injection help in the clinical diagnosis? A prospective study. *Arthroscopy.* juni 2010;26(6):734–42.
4. Hermans J, Luime JJ, Meuffels DE, Reijman M, Simel DL, Bierma-Zeinstra SMA. Does this patient with shoulder pain have rotator cuff disease?: The Rational Clinical Examination systematic review. *JAMA.* 28 augustus 2013;310(8):837–47.
5. Dunn WR, Kuhn JE, Sanders R, An Q, Baumgarten KM, Bishop JY, e.a. Symptoms of pain do not correlate with rotator cuff tear severity: a cross-sectional study of 393 patients with a symptomatic atraumatic full-thickness rotator cuff tear. *J Bone Joint Surg Am.* 21 mei 2014;96(10):793–800.
6. Van Kampen DA, van den Berg T, van der Woude HJ, Castelein RM, Scholtes VAB, Terwee CB, e.a. The diagnostic value of the combination of patient characteristics, history, and clinical shoulder tests for the diagnosis of rotator cuff tear. *J Orthop Surg Res.* 2014;9:70.
7. Jain NB, Yamaguchi K. History and physical examination provide little guidance on diagnosis of rotator cuff tears. *Evid Based Med.* juni 2014;19(3):108.

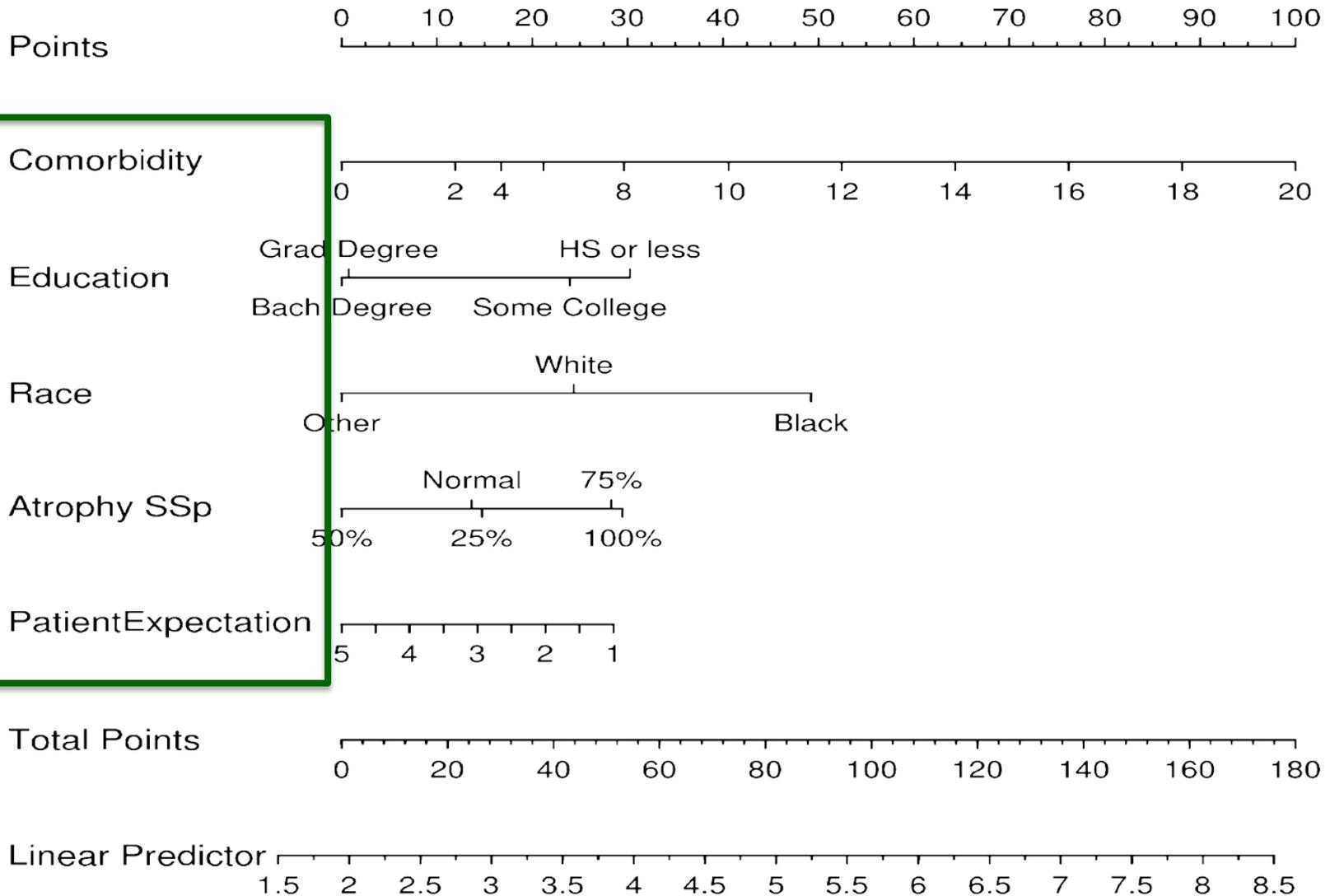
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Leidt een RC ruptuur tot verlies van spierkracht?

Grotere rupturen wel !





Vij factoren die samenhangen met het ontstaan van SchouderPijn bij RC letsels.

Dunn WR, Kuhn JE, Sanders R, An Q, Baumgarten KM, Bishop JY, e.a. Symptoms of pain do not correlate with rotator cuff tear severity: a cross-sectional study of 393 patients with a symptomatic atraumatic full-thickness rotator cuff tear. *J Bone Joint Surg Am.* 21 mei 2014;96(10):793–800.

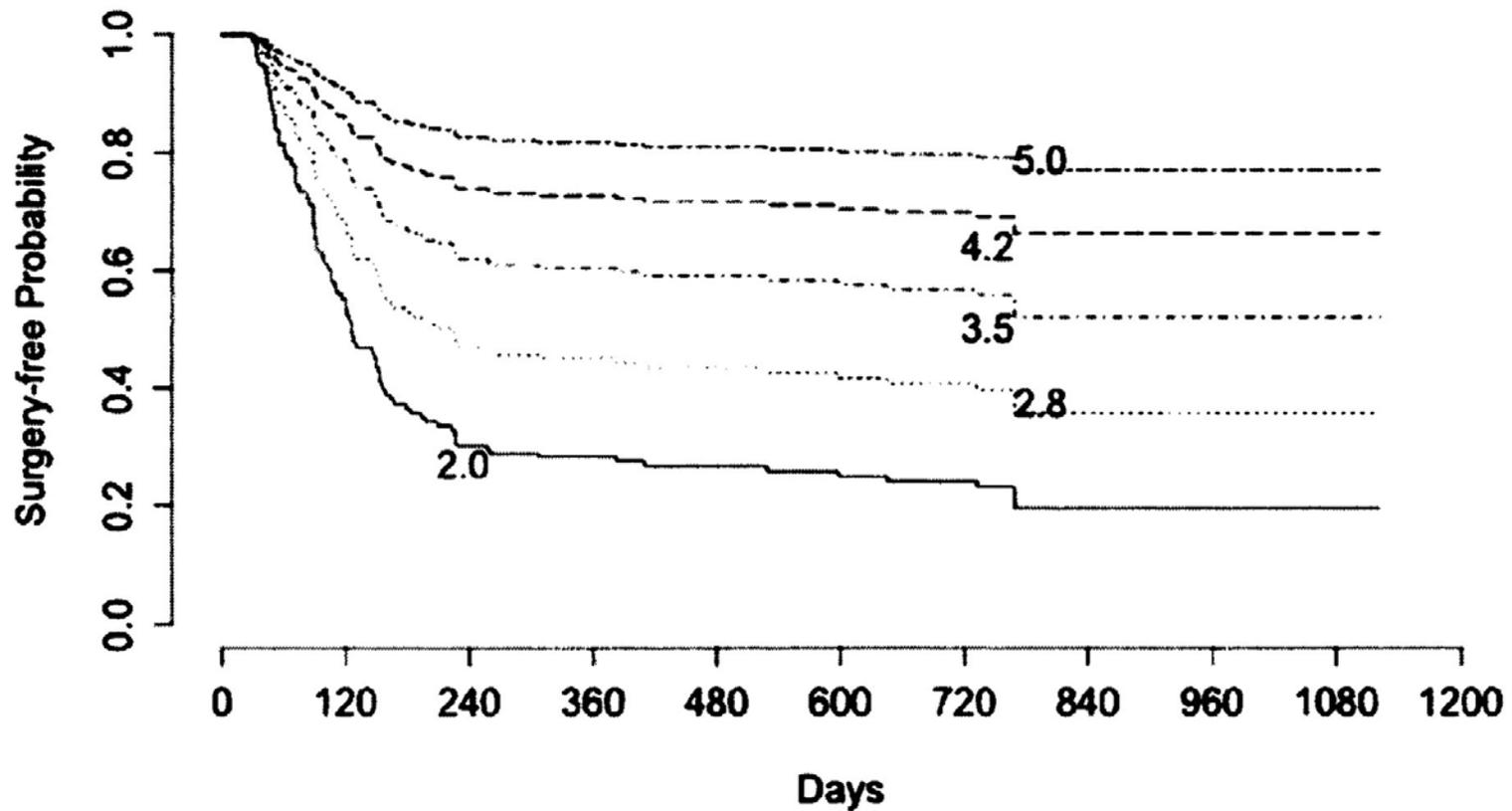


Figure 1 Survival plot of surgery-free probability stratified by patient expectations regarding physical therapy with a 5 indicating high expectations that rehab will lead to improvement, and lower scores indicating lower expectations.

Verwachting patiënt over effectiviteit FT bepaalt de kans op chirurgie!

Is het belangrijk dat een patiënt
vertrouwen heeft in de FT aanpak?

JA !!

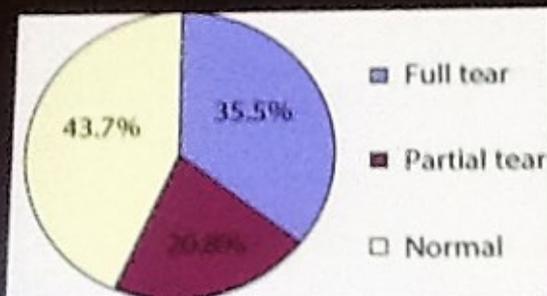
En hoe gaan we dat doen?
Deels: samenwerken in een SN!
Met SDM relevantie FT 'uitleggen'.

Patients with atraumatic orthopaedic conditions typically present with pain, and that pain often correlates with the severity of the disorder. This does not appear to be the case with rotator cuff tears as our data suggest that there is no relationship between pain severity and rotator cuff tear severity.

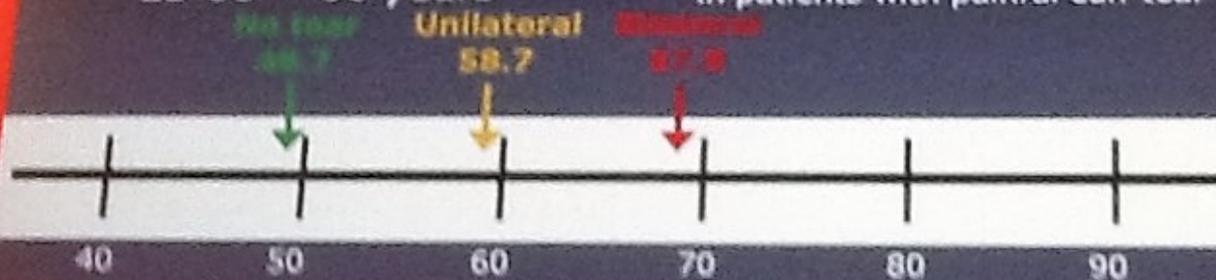
There are abundant data to suggest that the relationship between pain and rotator cuff tears is not robust. Nonoperative treatment of symptomatic, atraumatic, full-thickness rotator cuff tears is successful in approximately 75% of patients.

Background

- Degenerative rotator cuff tears are common
- Etiology related to age
- LD 50 = 66 years

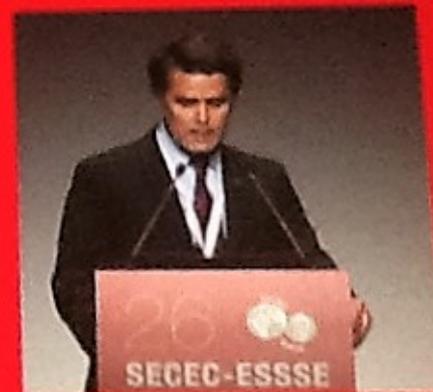


Contralateral shoulder US
in patients with painful cuff tear



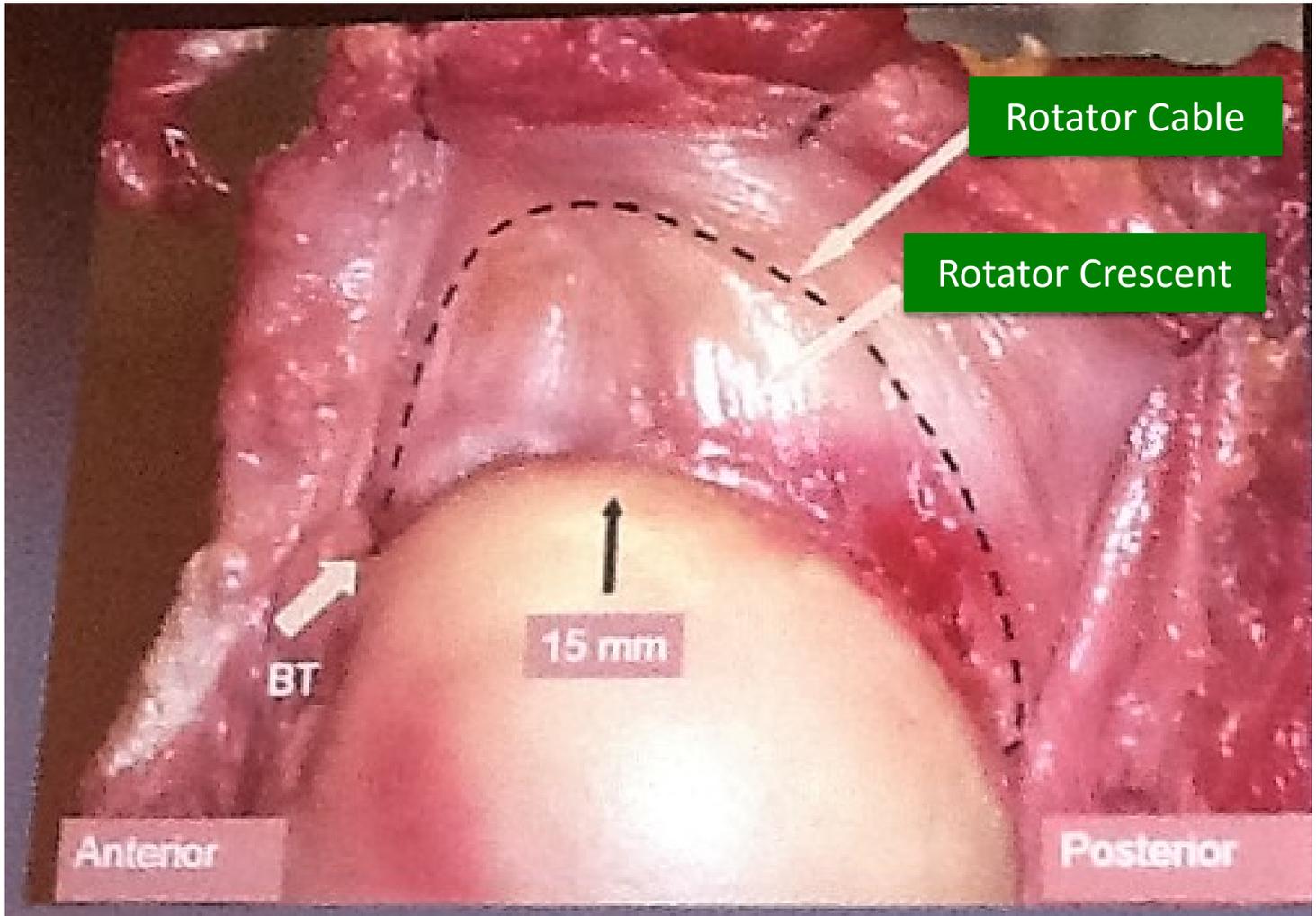
Washington University Physicians • Barnes-Jewish Hospital

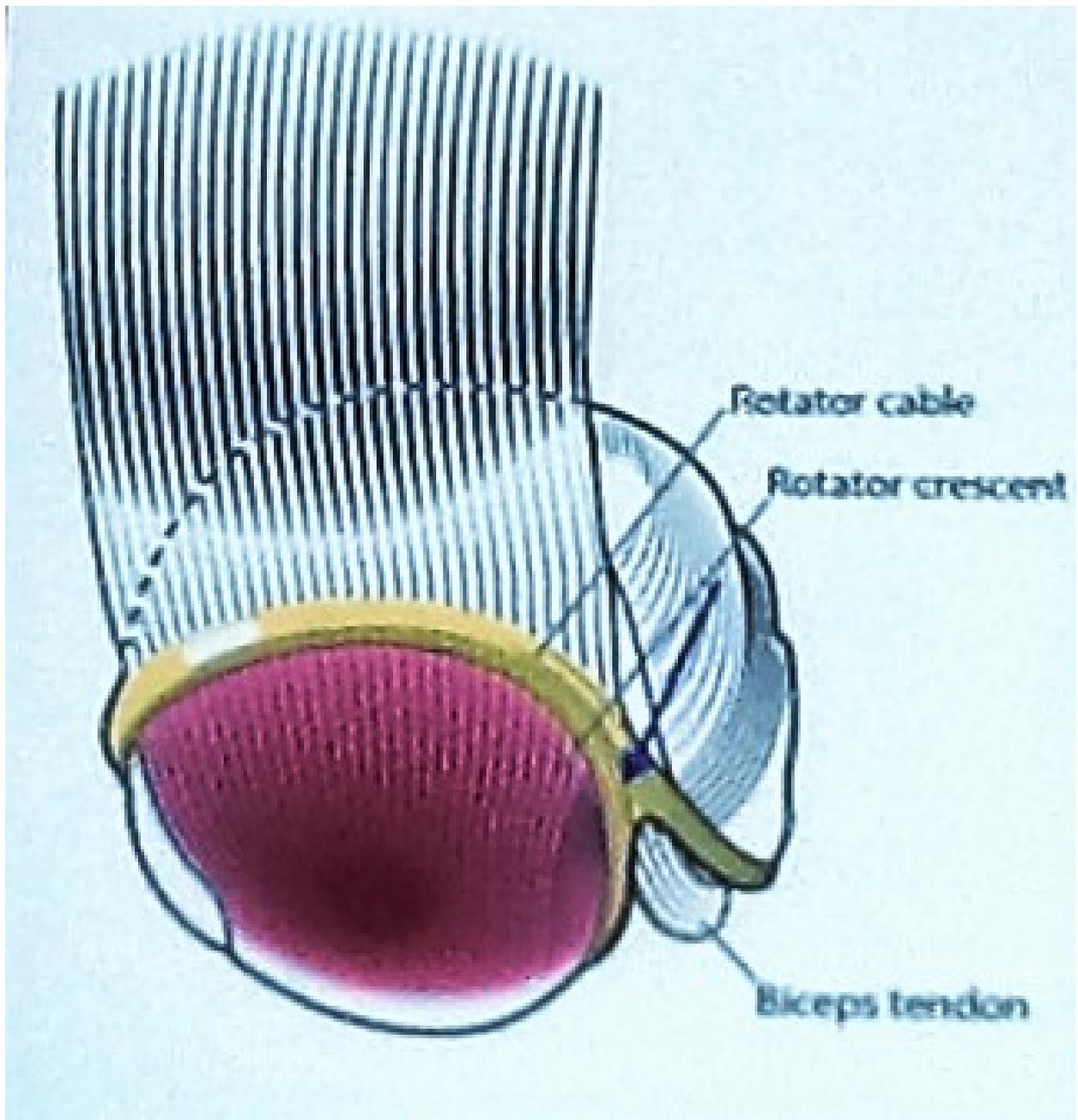
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Results - Enlargement Analysis

Total FTRCT's, N=68			
	Cable intact (n=43)	Cable Disrupted (n=25)	P value
Size	8.0 [6.0] mm	19.0 [11.0] mm	<0.0001
Distance to LHB	10.0 [5.0] mm	0.0 [0.0] mm	
F/u duration	4.8 [3.0] yrs	3.6 [2.2] yrs	0.09
Enlargement	7.0 [8.0] mm	9.0 [5.0] mm	0.18
Direction			
Anterior Enl	5.0 [9.0]	0.0 [0.0]	
Posterior Enl	4.0 [7.0]	9.0 [5.0]	
Anterior only	16 (37%)	0 (0%)	
Posterior only	16 (37%)	24 (96%)	
Bidirectional	11 (26%)	1 (4%)	



Keener JD, Wei AS, Kim HM, Steger-May K, Yamaguchi K. Proximal humeral migration in shoulders with symptomatic and asymptomatic rotator cuff tears. *J Bone Joint Surg Am.* juni 2009;91(6):1405–13.

TABLE II Comparison of Variables Between Asymptomatic and Symptomatic Sides (N = 160)

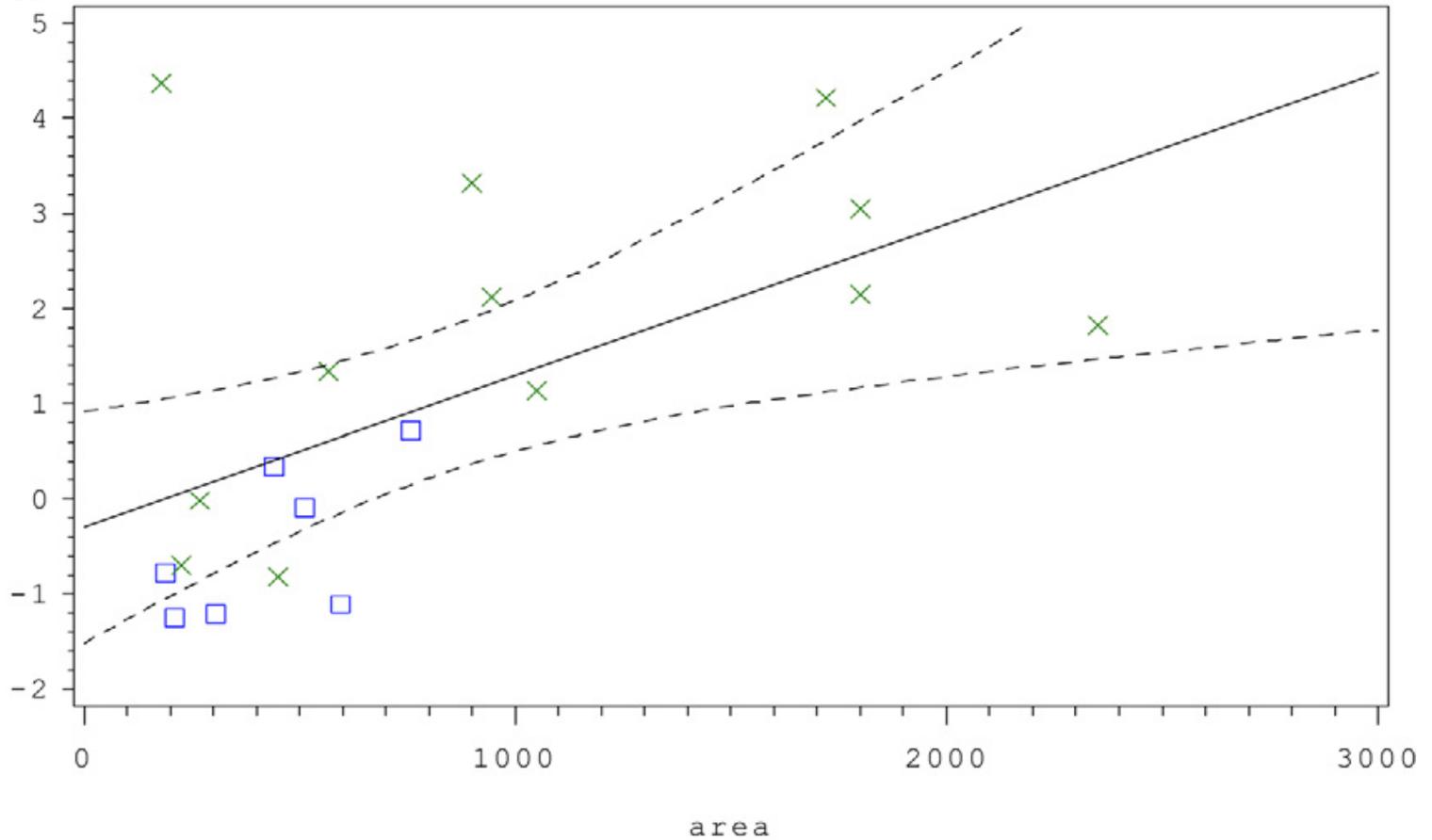
Variable	Asymptomatic Side (N = 98)	Symptomatic Side (N = 62)	P Value*
Migration for all shoulders in group† (<i>mm</i>)	- 0.38 ± 1.3	0.21 ± 1.6	0.01‡
Non-controls§ Migration† (<i>mm</i>)	- 0.28 ± 1.3	0.26 ± 1.6	0.03‡
Tear length† (<i>mm</i>)	12.0 ± 9.0	14.9 ± 13	0.19#
Tear width† (<i>mm</i>)	11.6 ± 6.8	14.0 ± 9.6	0.15#
Tear area† (<i>mm</i> ²)	189 ± 304	310 ± 502	0.15#
Tear location category**			
Infraspinatus, or supraspinatus and infraspinatus	10 (14%)	19 (32%)	0.01‡
Supraspinatus	63 (86%)	40 (68%)	

*The p values were derived, with an unpaired t test or chi-square test, in a comparison of the asymptomatic and symptomatic sides. †The values are given as the mean and standard deviation. ‡The p value indicates significance ($p < 0.05$). §Non-controls indicate shoulders in which a rotator cuff tear was demonstrated by ultrasound. #The p value was derived with an unpaired t test with use of log-transformed data. **The values are given as the number of shoulders with the percentage in parentheses.

Keener JD, Wei AS, Kim HM, Steger-May K, Yamaguchi K. Proximal humeral migration in shoulders with symptomatic and asymptomatic rotator cuff tears. *J Bone Joint Surg Am.* juni 2009;91(6):1405–13.

Area ≥ 175 =Yes

migration



Pain \square \square \square No \times \times \times Yes

Keener JD, Wei AS, Kim HM, Steger-May K, Yamaguchi K. Proximal humeral migration in shoulders with symptomatic and asymptomatic rotator cuff tears. J Bone Joint Surg Am. juni 2009;91(6):1405–13.



Duidelijke toename afwijkingen \neq klinische symptomatologie.

Fucentese SF, von Roll AL, Pfirrmann CWA, Gerber C, Jost B. Evolution of nonoperatively treated symptomatic isolated full-thickness supraspinatus tears. J Bone Joint Surg Am. 2 mei 2012;94(9):801–8.

FT handelen & evidentie bij RC letsels

1. Mantone JK, Burkhead WZ, Noonan J. Nonoperative treatment of rotator cuff tears. *Orthop Clin North Am.* april 2000;31(2):295–311.
2. Ainsworth R, Lewis JS. Exercise therapy for the conservative management of full thickness tears of the rotator cuff: a systematic review. *Br J Sports Med.* april 2007;41(4):200–10.
3. Maman E, Harris C, White L, Tomlinson G, Shashank M, Boynton E. Outcome of nonoperative treatment of symptomatic rotator cuff tears monitored by magnetic resonance imaging. *J Bone Joint Surg Am.* augustus 2009;91(8):1898–906.
4. Baydar M, Akalin E, El O, Gulbahar S, Bircan C, Akgul O, e.a. The efficacy of conservative treatment in patients with full-thickness rotator cuff tears. *Rheumatol Int.* april 2009;29(6):623–8.
5. Tashjian RZ. Epidemiology, natural history, and indications for treatment of rotator cuff tears. *Clin Sports Med.* oktober 2012;31(4):589–604.
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7. Kuhn JE, Dunn WR, Sanders R, An Q, Baumgarten KM, Bishop JY, e.a. Effectiveness of physical therapy in treating atraumatic full-thickness rotator cuff tears: a multicenter prospective cohort study. *J Shoulder Elbow Surg.* oktober 2013;22(10):1371–9.
8. Kukkonen J, Joukainen A, Lehtinen J, Mattila KT, Tuominen EKJ, Kauko T, e.a. Treatment of non-traumatic rotator cuff tears: A randomised controlled trial with one-year clinical results. *Bone Joint J.* januari 2014;96-B(1):75–81.
9. Feeley B. Repair and/or Acromioplasty Added to Physiotherapy Did Not Improve Outcome in Rotator Cuff Tear More Than Physiotherapy Alone. *J Bone Joint Surg Am.* 19 november 2014;96(22):1922.

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Voldoende externe evidentie.

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Other Animals

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Search results

Items: 1 to 20 of 64 << First < Prev Page 1 of 4 Next > Last >>

- [Pain can be incapacitating.](#)
1. Auvenshine RC.
Cranio. 2015 Jul;33(3):165-6. doi: 10.1179/0886963415Z.000000000119. No abstract available.
PMID: 26159688
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Intervention Review

Interventions for shoulder pain

Sally Green^{1*}, Rachelle Buchbinder², A Forbes³

Database Title

The Cochrane Library

Editorial Group: [Cochrane Musculoskeletal Group](#)

Published Online: 18 OCT 2006

Assessed as up-to-date: 23 FEB 1999

DOI: 10.1002/14651858.CD001156.pub2

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Reason for withdrawal from publication

Reason for withdrawal:

The review has been split into seven reviews that will be/have been published as:

- Buchbinder R, Green S, Youd JM. Corticosteroid injections for shoulder pain. *Cochrane Database of Systematic Reviews* 2003, Issue 1. Art. No.: CD004016. DOI: 10.1002/14651858.CD004016.

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Intervention Review

Physiotherapy interventions for shoulder pain

Sally Green^{1*}, Rachelle Buchbinder², Sarah E Hetrick³

Database Title

The Cochrane Library

Editorial Group: [Cochrane Musculoskeletal Group](#)

Published Online: 22 APR 2003

Assessed as up-to-date: 24 FEB 2003

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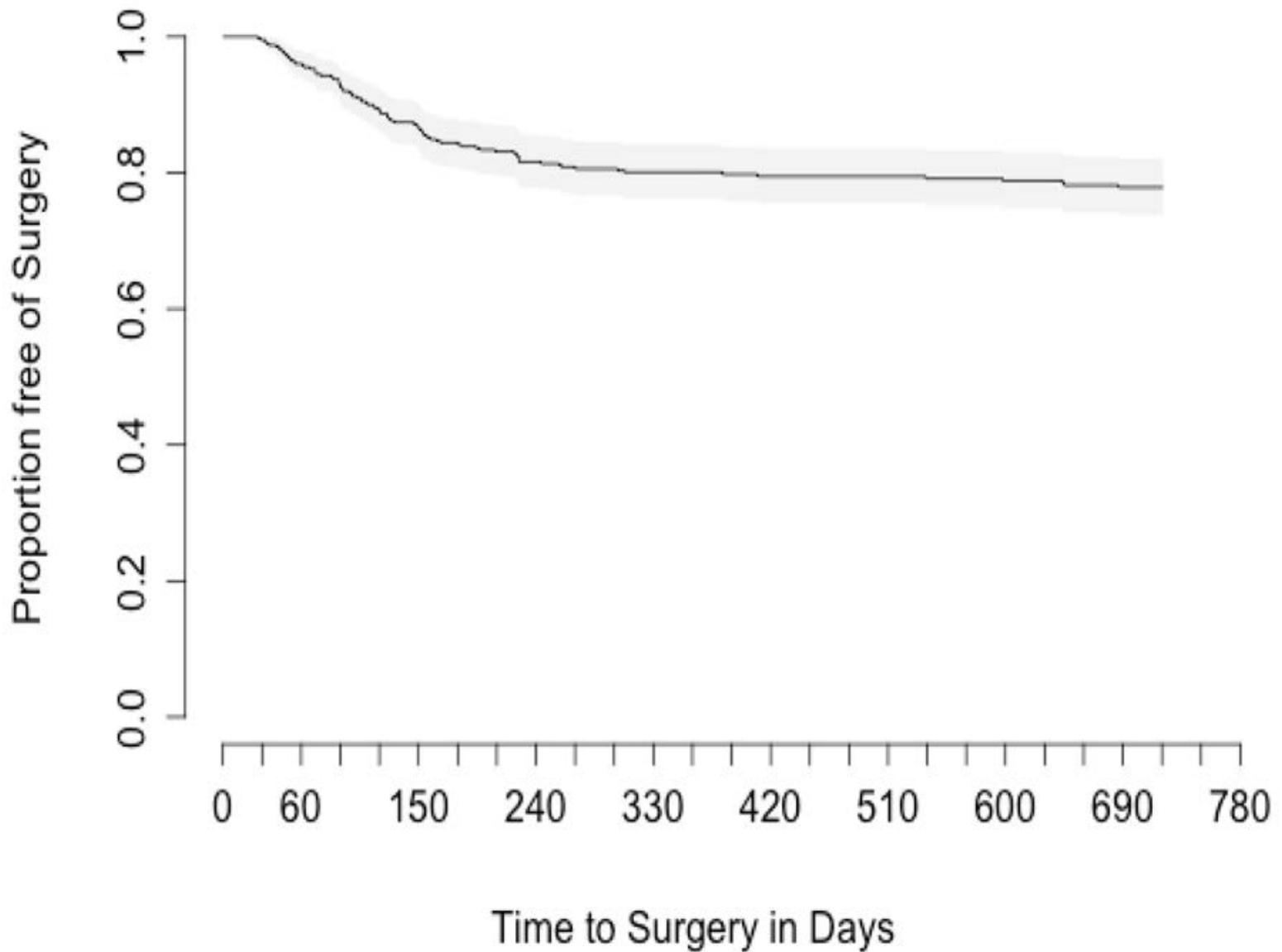
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Abstract

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Background

The prevalence of shoulder disorders has been reported to range from seven to 36% of the population (Lundberg 1969) accounting for 1.2% of all General Practitioner encounters in Australia (Bridges Webb 1992). Substantial disability and significant morbidity can result from shoulder disorders. While many treatments have been employed in the treatment of shoulder disorders, few have been proven in randomised controlled trials. Physiotherapy is often the first line of management for shoulder pain and to date its efficacy has not been established. This review is one in a series of reviews of varying interventions for shoulder disorders, updated from an earlier Cochrane review of all interventions for shoulder disorder.



‘Slechts’ risico op chirurgie in de eerste 6 maanden na episode met SP ??

Kuhn JE, Dunn WR, Sanders R, An Q, Baumgarten KM, Bishop JY, e.a. Effectiveness of physical therapy in treating atraumatic full-thickness rotator cuff tears: a multicenter prospective cohort study. *J Shoulder Elbow Surg.* oktober 2013;22(10):1371–9.

Patients with atraumatic orthopaedic conditions typically present with pain, and that pain often correlates with the severity of the disorder. This does not appear to be the case with rotator cuff tears as our data suggest that there is no relationship between pain severity and rotator cuff tear severity.

There are abundant data to suggest that the relationship between pain and rotator cuff tears is not robust.

Nonoperative treatment of symptomatic, atraumatic, full-thickness rotator cuff tears is successful in approximately 75% of patients.

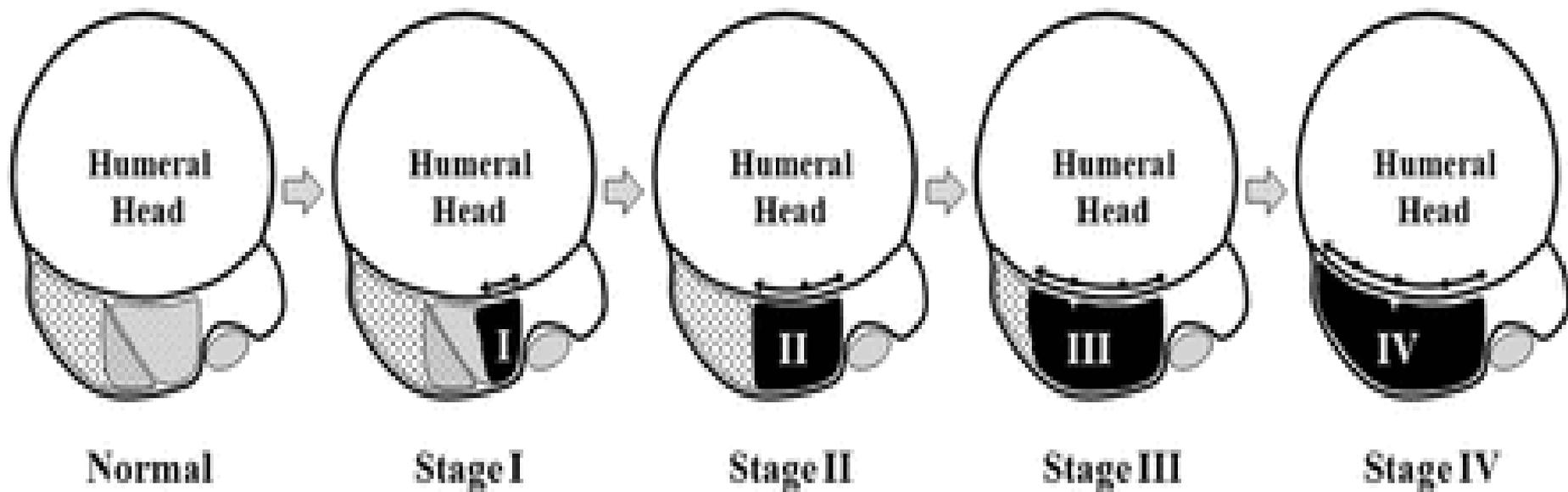
FT handelen bij RC letsels

- Primair SAPS / RC letsel: *bron van nocisensoriek & oorzaak in subacromiaal gelegen weefsels.*
- Secundair SAPS / RC letsel: *bron van nocisensoriek in subacromiaal gelegen weefsels; oorzaak elders!*
 - GH
 - ST
 - CWK / TWK
 - Rompstabiliteit
 - Onderste extremiteiten
- Mentale factoren (zelfvertrouwen, lef, realistisch)
- Chronische pijnsyndroom (sensitisatie)

Prognostische factoren bij RC letsels

1. Tashjian RZ, Farnham JM, Albright FS, Teerlink CC, Cannon-Albright LA. Evidence for an inherited predisposition contributing to the risk for rotator cuff disease. *J Bone Joint Surg Am.* mei 2009;91(5):1136–42.
2. Tanaka M, Itoi E, Sato K, Hamada J, Hitachi S, Tojo Y, e.a. Factors related to successful outcome of conservative treatment for rotator cuff tears. *Ups J Med Sci.* augustus 2010;115(3):193–200.
3. Safran O, Schroeder J, Bloom R, Weil Y, Milgrom C. Natural history of nonoperatively treated symptomatic rotator cuff tears in patients 60 years old or younger. *Am J Sports Med.* april 2011;39(4):710–4.
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5. Harris JD, Pedroza A, Jones GL, MOON (Multicenter Orthopedic Outcomes Network) Shoulder Group. Predictors of pain and function in patients with symptomatic, atraumatic full-thickness rotator cuff tears: a time-zero analysis of a prospective patient cohort enrolled in a structured physical therapy program. *Am J Sports Med.* februari 2012;40(2):359–66.
6. Liem D, Buschmann VE, Schmidt G, Vogler T, Schulte TL, Balke M. The prevalence of rotator cuff tears, is the contralateral shoulder at risk? *Am J Sports Med.* 2014(42):826-30.
7. Yamamoto A, Takagishi K, Kobayashi T, Shitara H, Ichinose T, Takasawa E, e.a. The impact of faulty posture on rotator cuff tears with and without symptoms. *J Shoulder Elbow Surg.* maart 2015;24(3):446–52.

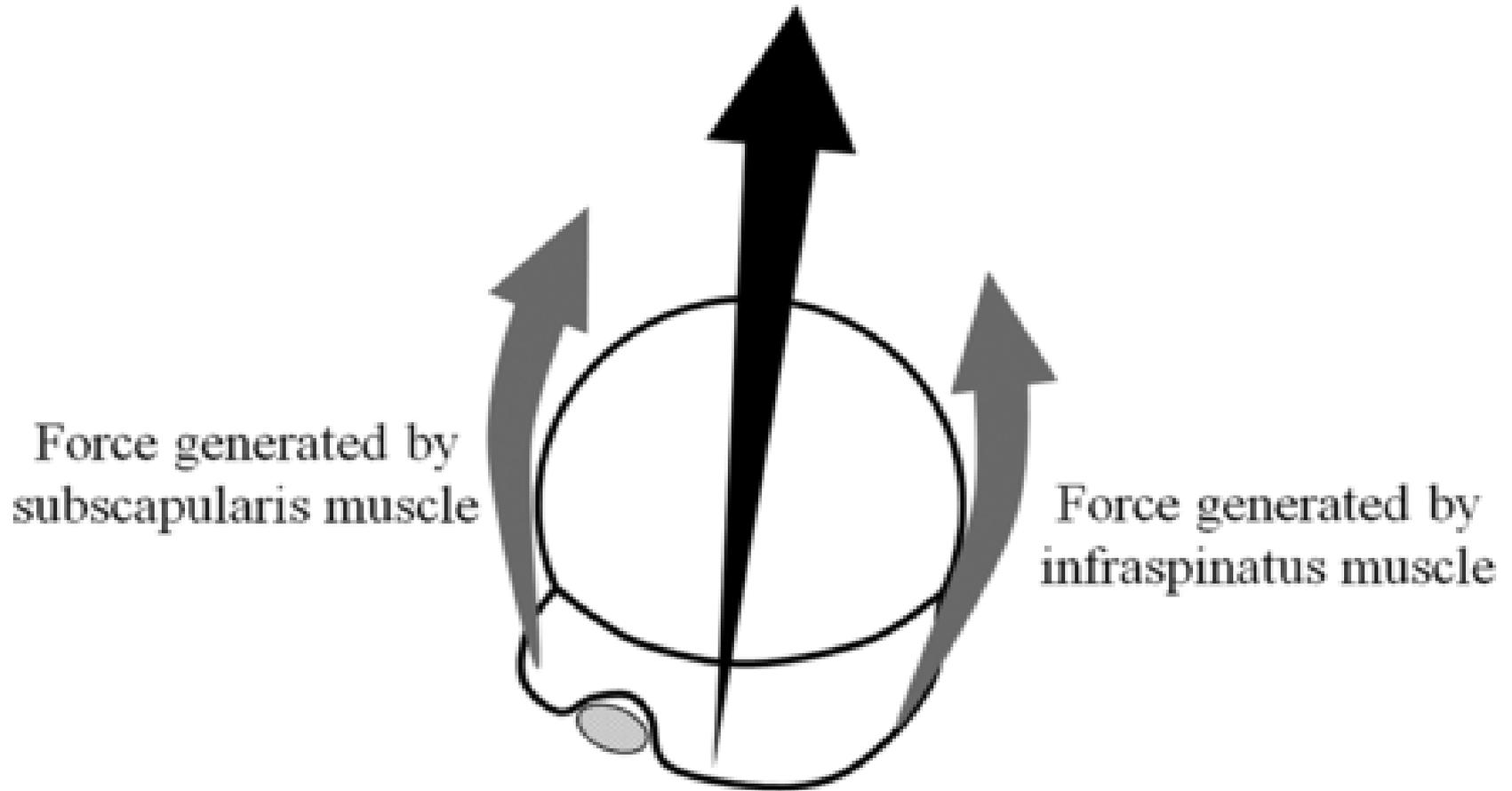
Plus presentaties SECEC congress Milaan September 2015.



Mogelijke stadia van een RC ruptuur.

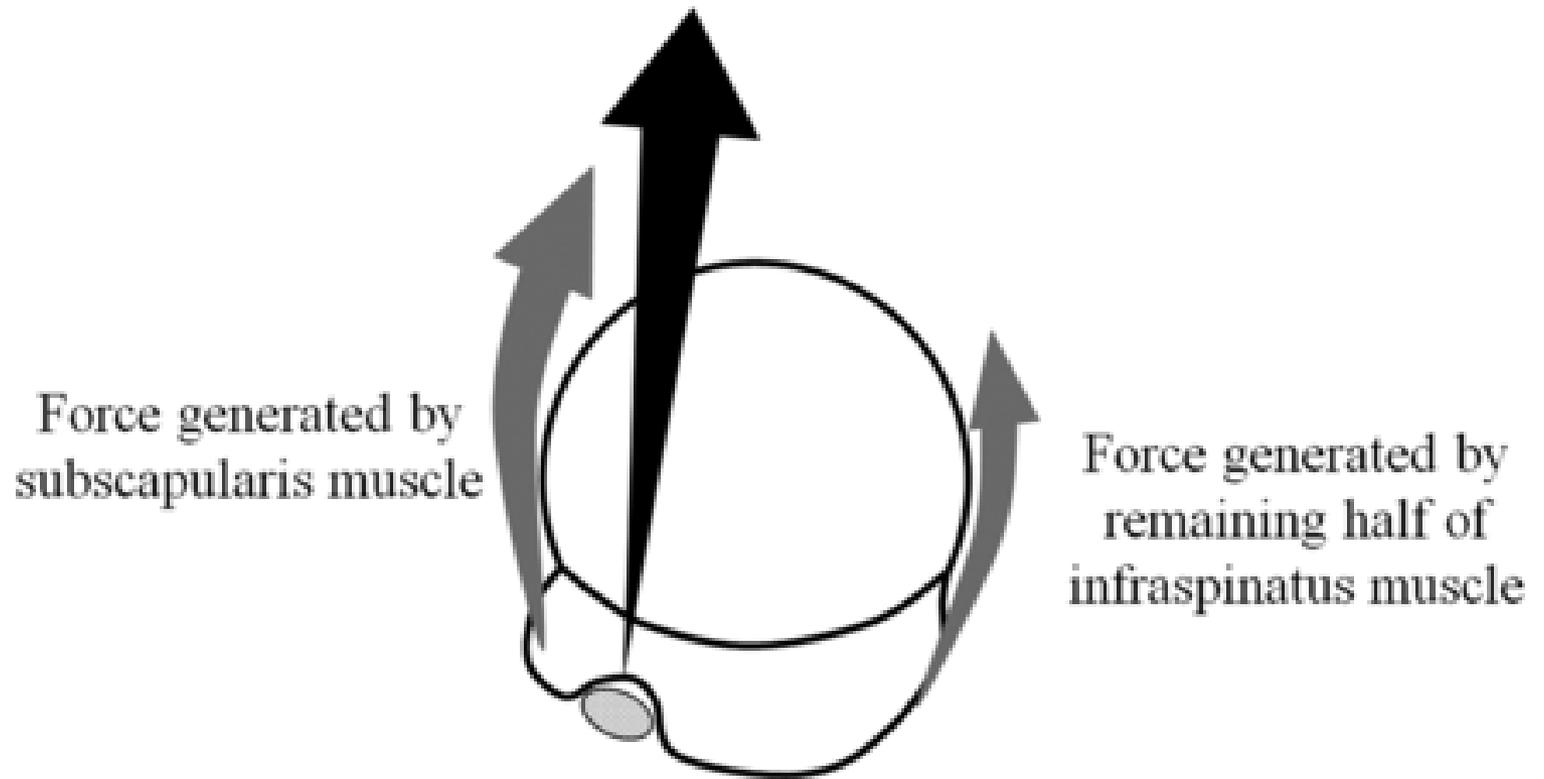
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Resultant compressive force
due to balanced force couple

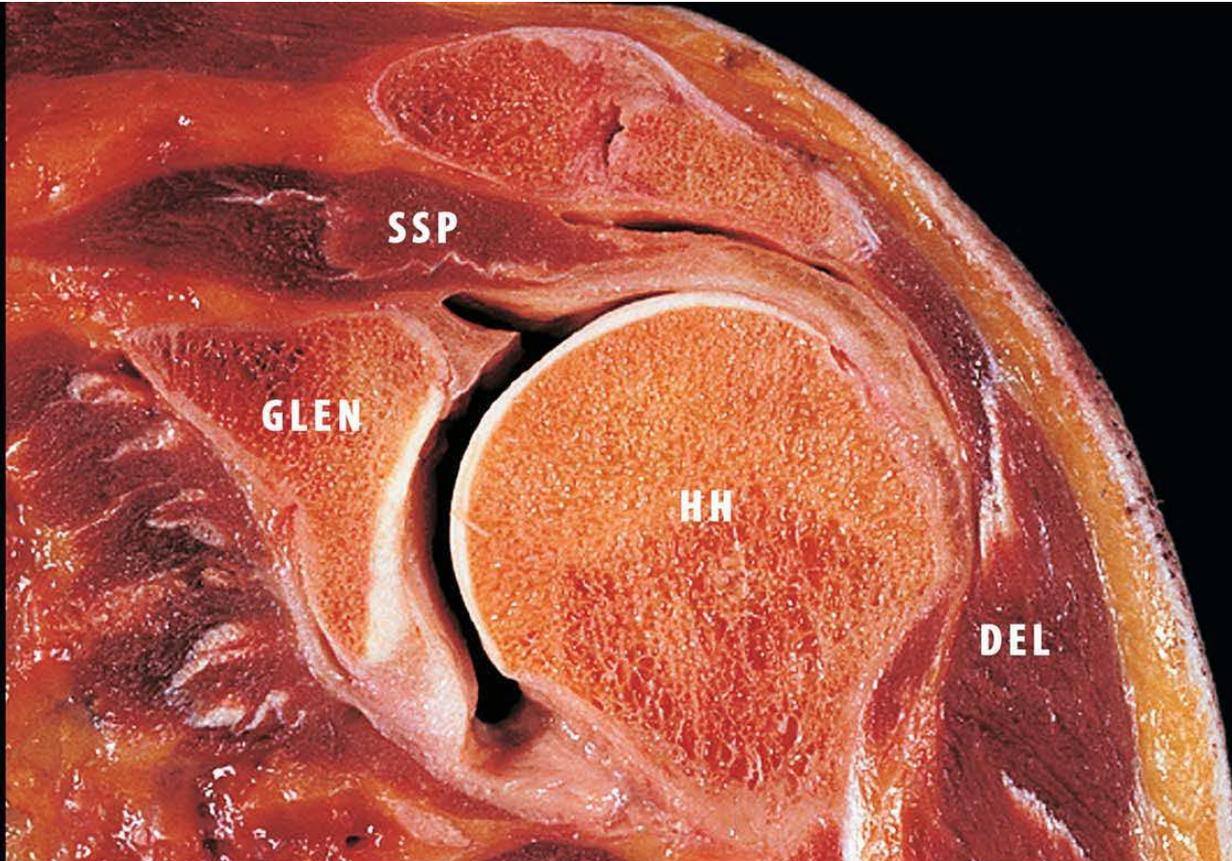


A. Balanced force couple

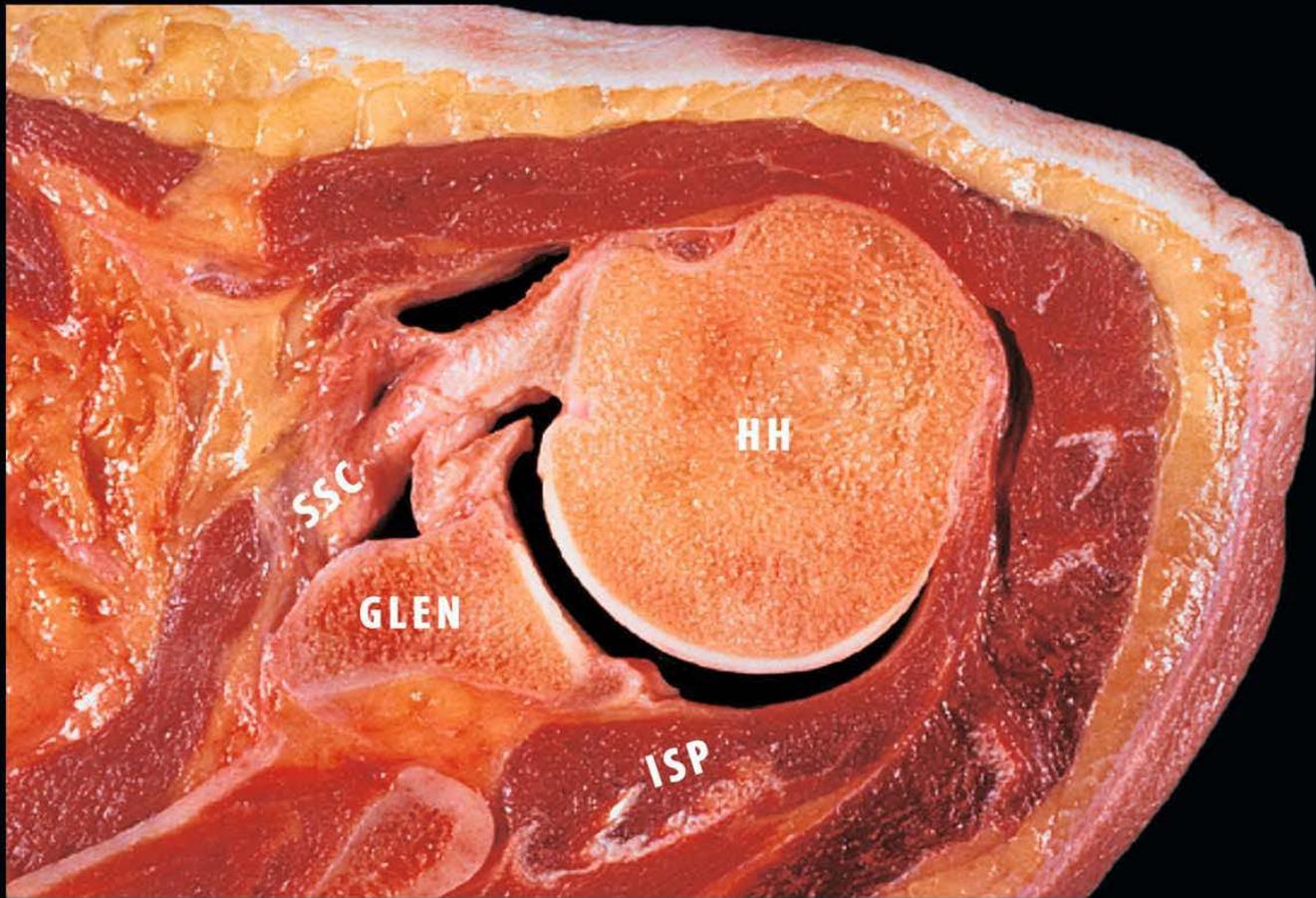
Change in resultant force due
to unbalanced force couple



B. Unbalanced force couple



Wat doen FT'en?
Herstel van het krachtenkoppel in het frontale vlak.



Wat doen FT'en?
Herstel van het krachtenkoppel in het frontale vlak.

	Odds ratio	P-value
Impingement sign	8.62	P < 0.001
Intramuscular tendon	4.42	P < 0.001
Range of motion in external rot.	3.69	P < 0.001
Muscle atrophy	2.28	P = 0.024

Table III. Statistical analysis of odds ratios of four factors (Tanaka / Itoi, 2010).

Tashjian RZ, Farnham JM, Albright FS, Teerlink CC, Cannon-Albright LA. Evidence for an inherited predisposition contributing to the risk for rotator cuff disease. J Bone Joint Surg Am. mei 2009;91(5):1136–42.

Mental Well-being is the Strongest Predictor of Shoulder Pain and Function in Patients with Symptomatic Full-thickness Rotator Cuff Tears

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Results

- 169 patients were prospectively enrolled with a full-thickness posterosuperior rotator cuff tear
 - 429 total patients diagnosed during the study period
 - 260 not enrolled – 7 declined; 185 unable to be enrolled due to scheduling conflicts with study coordinator; 68 excluded
- 8% Workers compensation Claim
- 45% active smokers
- 21% female; 79% male
- Average age at diagnosis – 62 years
- Average BMI – 30 kg/m²



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Results

- **Outcome Scores**
 - Mean VAS pain – 4.8
 - Mean VAS function – 5.6
 - Mean SST – 4.4
 - Mean ASES – 47.5
- **Tear Severity**
 - Mean tear size (AP width) – 2.7 cm
 - Mean tear retraction – 2.4 cm



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Worse (Lower) MCS = Worse shoulder PROs

Patient Reported Shoulder Score	SF-36 MCS	
	PCC	P-value
VAS Shoulder Pain	-0.476	<0.001
VAS Shoulder Function	-0.332	<0.001
SST	0.367	<0.001
ASES Score	0.505	<0.001



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Multivariate regressions with tear size

Variable	VAS Pain		VAS Function		ASES Score		SST	
	R	p	R	p	R	p	R	p
Age	-0.03	0.299	0.12	0.628	0.06	0.758	-0.04	0.130
Female	0.57	0.267	-0.64	0.179	-3.56	0.350	-0.35	0.545
Gender								
BMI	0.06	0.102	0.05	0.128	0.66	0.011	-0.11	0.004
Medical Comorbidity	0.16	0.117	0.01	0.961	-1.23	0.096	-0.12	0.296
Workers Compensation	-0.34	0.651	1.38	0.050	1.10	0.845	-1.28	0.130
Smoker	0.64	0.120	0.25	0.519	-1.10	0.719	-0.61	0.185
SF-36 MCS	-0.09	<0.001	-0.07	<0.001	0.79	<0.001	0.09	<0.001
Tear Size	0.02	0.887	0.34	0.008	1.94	0.059	-0.28	0.070



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Conclusion

- Patient mental health (MCS) has the strongest association with patient reported shoulder pain, function and shoulder specific outcomes in patients with full-thickness rotator cuff tears
- Tear severity is associated with shoulder function only
- Further research required to understand the affects of mental health on improvement in pain, function and outcomes after surgical and nonoperative treatment



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The impact of faulty posture on rotator cuff tears with and without symptoms

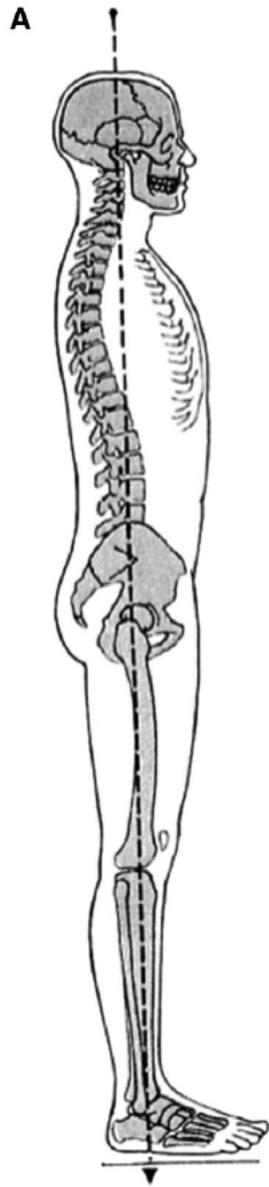


**Atsushi Yamamoto, MD, PhD^{a,*}, Kenji Takagishi, MD, PhD^a,
Tsutomu Kobayashi, MD, PhD^b, Hitoshi Shitara, MD, PhD^a,
Tsuyoshi Ichinose, MD, PhD^a, Eiji Takasawa, MD^a, Daisuke Shimoyama, MD^a,
Toshihisa Osawa, MD, PhD^c**

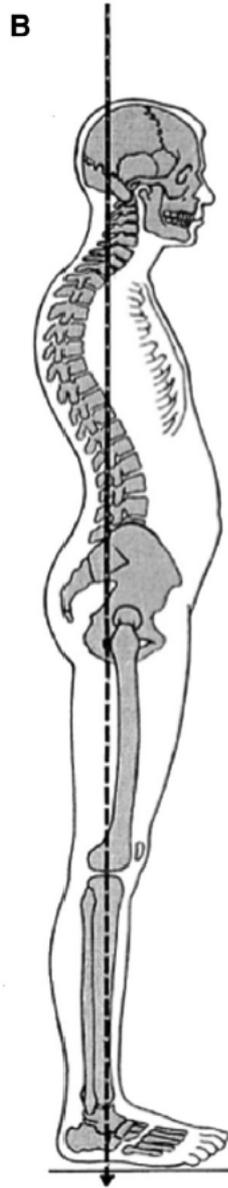
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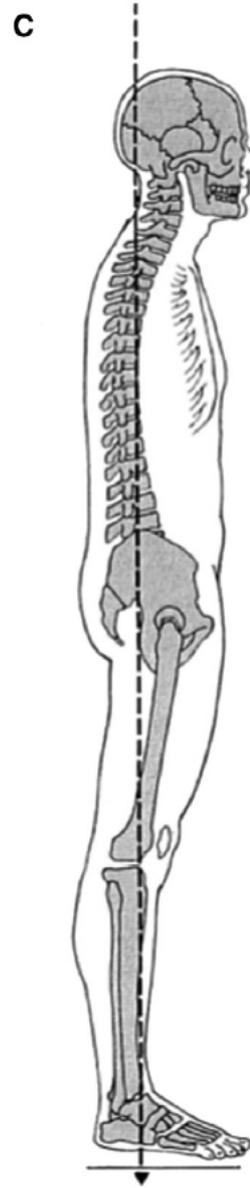
^c*Department of Orthopaedic Surgery, National Hospital Organization, Takasaki General Medical Center, Takasaki, Gunma, Japan*



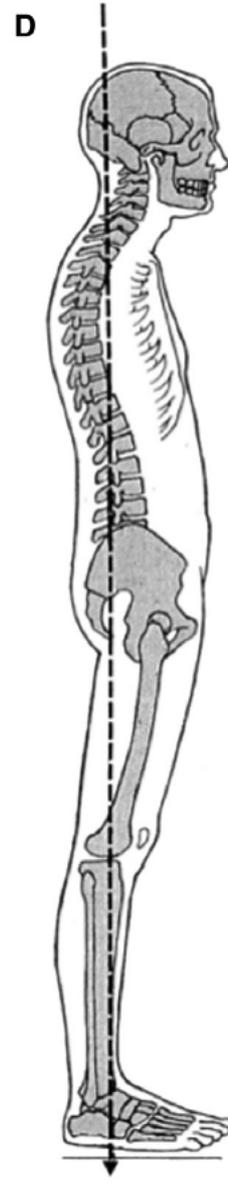
Ideal alignment.



Kyphotic-lordotic posture



Flat-back posture

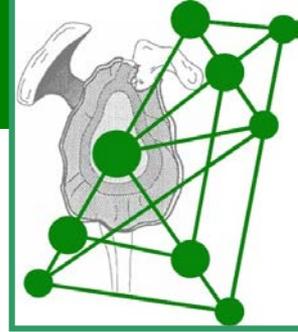


Sway-back posture.

Table I (continued)

	With RCT (n = 93)	Without RCT (n = 286)	<i>P</i> value
Posture			
Ideal	5 (2.9%)	167 (97.1%)	<.001
Kyphotic-lordotic	27 (34.2%)	52 (65.8%)	
Flat-back	37 (45.7%)	44 (54.3%)	
Sway-back	24 (51.1%)	23 (48.9%)	

RCT, rotator cuff tear; *SST*, Simple Shoulder Test; *ER*, external rotation.



Afronding / conclusies

- De degeneratieve RC ruptuur betreft een belangrijke risicofactor voor SchouderPijn
- Het is een uitdaging om rupturen at-risk goed te monitoren en te behandelen
- Het blijft belangrijk diagnostische en evaluatieve klinische tests te onderscheiden
- De degeneratieve RC ruptuur is een thema dat SDM van patiënt – chirurg – FT vereist