First-time anterior shoulder dislocation

2025 Sports Medicine Update

No disclosures

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First Time Traumatic Anterior Shoulder Dislocation

Young patients

Athletes

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Elderly

Rotator Cuff

Tears

Young Athlete

Natural History

Return to Play

Recurrence

Performance

Missed games and practice

Incidence

- Most commonly dislocated joint in the body
- Estimated prevalence of 2-8% of general population
- Rate of 11-24 annual dislocations per 100,000 of general population
- Rate of 160 annual dislocations per 100,000 of military personnel and athletic populations.

Conservative success

- Shanley et al, AJSM 2019
  - High School Athletes treated with Non-operative treatment
  - 85% were able to return to preinjury activity levels and complete full season without recurrence
- Leland et al, AJSM 2020
  - Patients under 40, recurrence rate of 36% with non-operative treatment

Recurrence

Buss et al, AJSM 2004

- 2-year follow up for young athletes
- 90% returned for a complete season
- Missed an average of 10.2 days practice/playing
- More than 50% had surgery in the off-season

Recurrence

Looks convincing

Nothing ruins a good treatment more than long term follow-up

Recurrence

Hovelius et al JBJS 2008

- 25 year follow up study of non-operatively treated
- Recurrence rate of 72% patients aged 12-22
- 56% in ages 23-29
- 27% in ages older than 30

Risk factors for recurrence

Younger patients

Male Sex

Contact Sports

Bone loss

Humeral Avulsion of the GHL

RC Tear

Risk factors for recurrence

- Multiple Level 1 Randomized Control Trials
- Substantially reduced recurrence with early stabilization
- Improved patient reported outcomes
- Improved event-free survival
- Significantly better return to preinjury activity levels
- Most pronounced reduction in younger, more athletic population.

Yapp et al, JBJS 2020, Pouges et al, AJSM 2021, Belk et al AJSM 2022

Why more often in the young?

Higher Type 3 collagen with increased elastic properities in tendons and ligaments.

Hayes et al, JOSPT 2002

Associated injuries

87% incidence of labral tear

12-64% for Hill-Sachs bony injury

18% capsular tear and rotator cuff injury

30% ALPSA

10-24% SLAP

6% HAGL

Wang Clin Shoulder Elb 2018

Associated injuries

When surgical delay

Higher Anatomic Injuries-

Yiannakopoulos et al, Arthroscopy 2007

Higher Postoperative failure rate-

Drain et al, OJSM 2022,

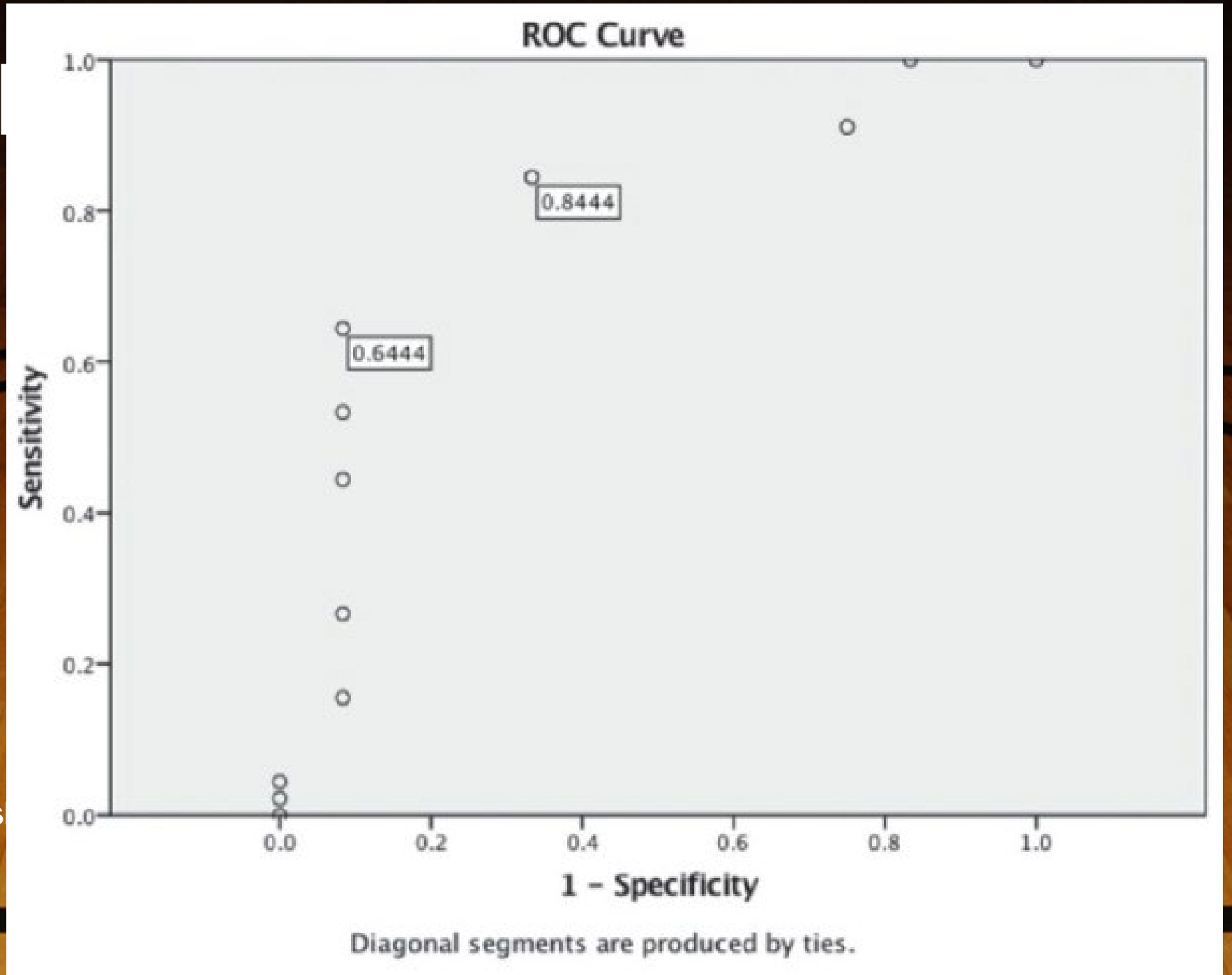
Vaswani et al, Arthroscopy 2020

TABLE 1 Classification of Sports According to Contact

Contact	Limited-Contact	Noncontact
Basketball	Adventure racing[a]	Badminton
Boxing[b]	Baseball	Bodybuilding[c]
Cheerleading	Bicycling	Bowling
Diving	Canoeing or kayaking (white water)	Canoeing or kayaking (flat water)
Extreme sports[d]	Fencing	Crew or rowing
Field hockey	Field events	Curling
Football, tackle	High jump	Dance
Gymnastics	Pole vault	Field events
Ice hockey[e]	Floor hockey	Discus
Lacrosse	Football, flag or touch	Javelin
Martial arts[f]	Handball	Shot-put
Rodeo	Horseback riding	Golf
Rugby	Martial arts[f]	Orienteering[g]
Skiing, downhill	Racquetball	Power lifting[c]
Ski jumping	Skating	Race walking
Snowboarding	Ice	Riflery
Soccer	In-line	Rope jumping
Team handball	Roller	Running
Ultimate Frisbee	Skiing	Sailing
Water polo	Cross-country	Scuba diving
Wrestling	Water	Swimming
	Skateboarding	Table tennis
	Softball	Tennis
	Squash	Track
	Volleyball	
	Weight lifting	
	Windsurfing or surfing	

Wait and see”

	Score Assigned	Individual Odds Ratio when added to NISIS
	3 pts	23.4
	2 pts	6.0
	2 pts	4.5
luxation	1 pt	3.6
olved	1 pt	2.8
	1 pt	1.5


ROC Curve
Sensitivity
1 - Specificity
0.0
0.2
0.4
0.6
0.8
1.0
0.8444
0.6444
Diagonal segments are produced by ties.

Tokis

The Nonoperative Instability Severity Index Score: Is It Predictive in a Larger Shoulder Instability Population at Long-Term Follow-Up?

Erick M. Marigi, M.D., Ryan R. Wilbur, B.A., Bryant M. Song, M.S., Aaron J. Krych, M.D., Kelechi R. Okoroha, M.D., and Christopher L. Camp, M.D.

59% completed 1 season.

Tokish et al, Sports Health 2020

"Fix them all" vs "wait and see"

Conclusions

The NISIS has been proposed as a potentially useful tool in clinical decision-making regarding appropriate use of nonoperative treatment in scholastic athletes. When applied to an established US-geographic population-based cohort consisting of competitive and recreational athletes under the age of 40 with longer-term follow-up, the NISIS high-risk cutoff was able to predict overall failure with 60.3% accuracy.

*Failure is defined as either recurrent instability or progression to surgery.

“Fix them all” vs “wait and see”

NISIS is not a perfect model

A tool to help make clinical decisions