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Five-year clinical follow-up of arthroscopically treated chronic ankle instability

Ronny Lopes, MD

Centre Orthopédique Santy, Lyon, France

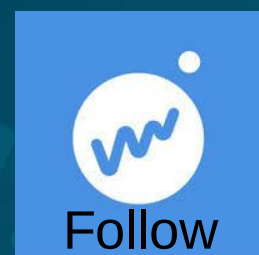
André Thès, MD, Boulogne FRANCE

Thomas Bauer, MD, PhD, Boulogne FRANCE

Stéphane Guillo, MD, Bordeaux-Mérignac FRANCE

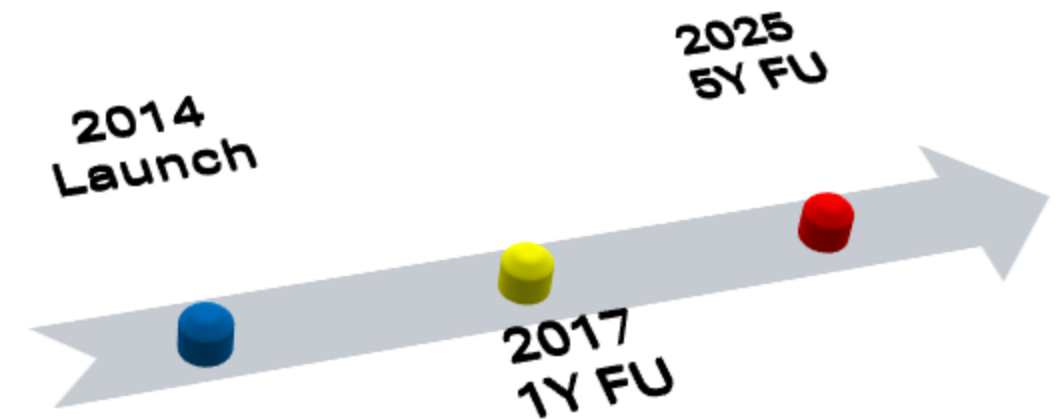


Disclosure Information



Background & Rationale

- **Arthroscopic treatment:** recent innovation for lateral ankle instability
- **Two main approaches:**
 - ligament repairs
 - anatomical reconstructions
- **2014** - Multicenter prospective study by the French Arthroscopy Society (SFA)
1-year follow up = 👍; **5-year follow-up** =



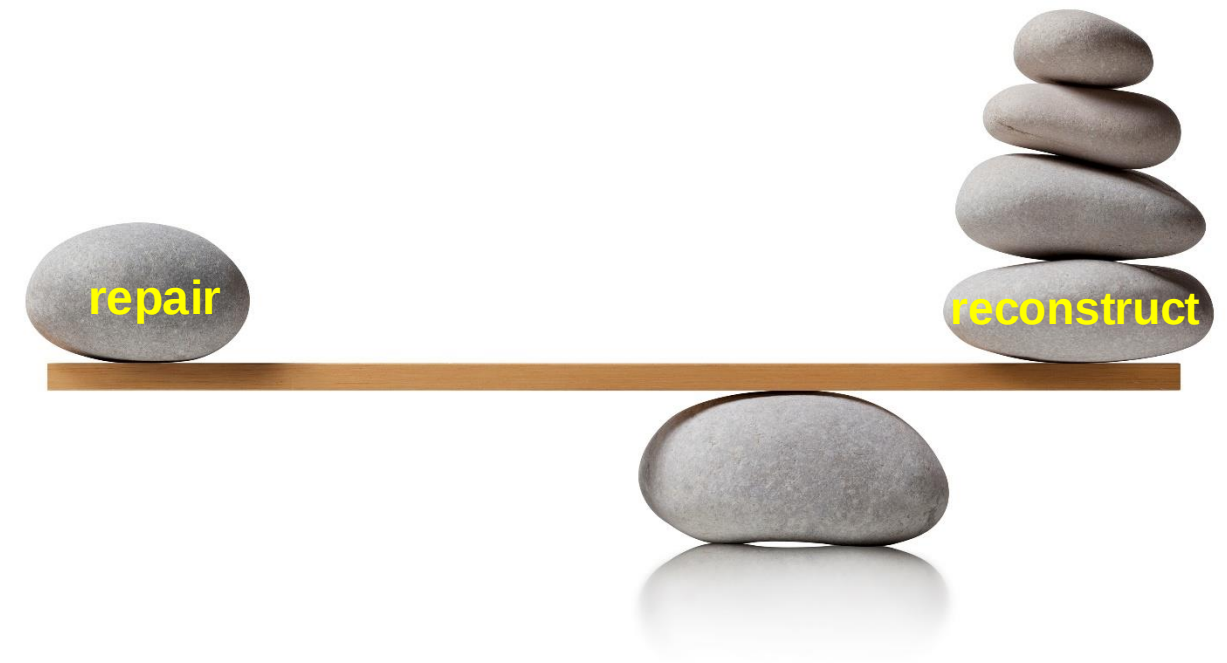
Hypothesis & Objectives

Hypothesis:

Functional outcomes at 1 year are maintained at 5 years.

Objectives:

- Assess medium-term clinical outcomes
- Identify failure predictors
- Compare ligament repair vs reconstruction



Study Design

- **Design:** Prospective multicenter study (2014 – 2017)
- **Follow-up:** Mean 60.5 months
- **Inclusion criteria:** Chronic lateral ankle instability
- **Scores used:** AOFAS, Karlsson, Patient satisfaction
- **Definition of failure:** Based on pain, instability, stiffness, satisfaction < 8

Demographics

Demographic data	Total (n = 172)	Repairs (n = 56)	Reconstructions (n = 116)	p-value
Age (years)	34.4	29.3	36.9	<0.001
Gender f/m (%)	44.2/55.8	60.7/39.3	36.2/63.8	0.004
BMI	25.2	23.4	26	<0.001
Hyperlaxity (%)	13.95	17	12.1	0.35
Work accident (%)	14.5	12.5	15.5	0.65
Sport (%)				
None	28.5	26.7	29.3	> 0.99
Leisure	48.4	51.1	47.7	
Competitive	21.7	22.2	21.5	
Professional	1.2	0	1.7	
Level of sport (IKDC – %)				
1	24.6	34.5	19.6	0.18
2	9.6	29.1	30.4	
3	35.9	29.1	39.3	
4	29.9	7.3	10.7	
Osteochondral lesions of the talus (%)	14.2	13	14.8	0.82
Presence of ATFL (%)	54.1	100	31.9	0.001
Anteromedial impingement (%)	44.8	46.4	44.0	0.90
Anterolateral impingement (%)	50.6	44.6	53.5	0.35
Chondral lesions (%)	29.7	35.7	26.7	0.30
Pathological syndesmosis (%)	1.2	1.8	0.9	0.55

f: female; m: male; ATFL: anterior talofibular ligament. Bold type indicates a statistically significant difference.



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Results - Functional Outcomes

- Satisfaction: 8.6/10
- Satisfied patients (score ≥ 8): 82%
- Reoperation rate: 6.4%

No significant differences
between groups

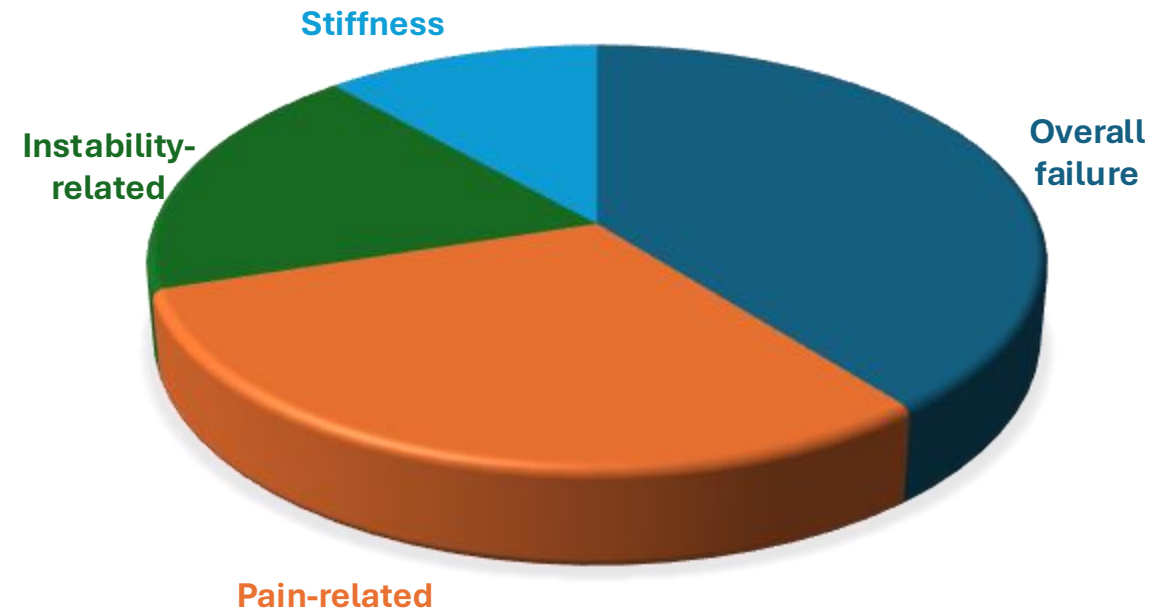
Satisfaction and functional results at 5 years.

	Overall (n = 172)	Repairs (n = 56)	Reconstructions (n = 116)
Satisfaction (/10)	8.6	8.9	8.5
Satisfaction (%)	82	86	80
Reoperations (%)	6.4	6.9	5.4
AOFAS	87.5	85	88.6
Karlsson	85	82.2	86.5
Overall failure (%)	23.8	26.8	22.4
Pain failure (%)	18.6	19.6	18.1
Instability failure (%)	11.1	14.3	9.5
Stiffness failure (%)	7.0	9.0	6.0

Results - Failure Rate & Causes

FAILURE

- **Overall failure: 23.8%**
- **Pain-related: 18.6%**
- **Instability-related: 11.1%**
- **Stiffness: 7.0%**

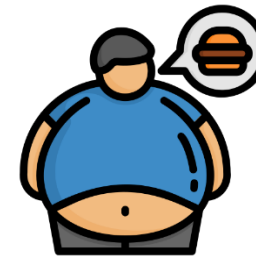


Most failures = pain during sport or uneven terrain

Results - Risk Factors for Failure

Independent predictors:

- High BMI ($p < 0.01$)
- Female gender ($p = 0.02$)
- No sport practice pre-op ($p = 0.002$)
- Less demanding sport (IKDC levels 3–4)



Repair vs Reconstruction

Progression of ligament reconstruction results.

Results of the reconstructions (n = 116)	At 1 year of follow-up	At 5 years of follow-up	p-value
Overall failure (%)	22.4	22.4	> 0.9
Pain failure (%)	15.5	18.1	0.59
Instability failure (%)	11.2	9.5	0.67
AOFAS	88.6	87.4	0.197
Karlsson	85.2	88.6	0.24

Progression of ligament repair results.

Results of the repairs (n = 56)	At 1 year of follow-up	At 5 years of follow-up	p-value
Overall failure (%)	21.4	26.8	0.51
Pain failure (%)	14.3	19.6	0.45
Instability failure (%)	10.7	14.3	0.57
AOFAS	92.4	85.0	0.001
Karlsson	89.6	82.2	0.002

Bold type indicates a statistically significant difference.

→ **Reconstruction** more stable over time

→ **Repair** showed score drop at 5 years

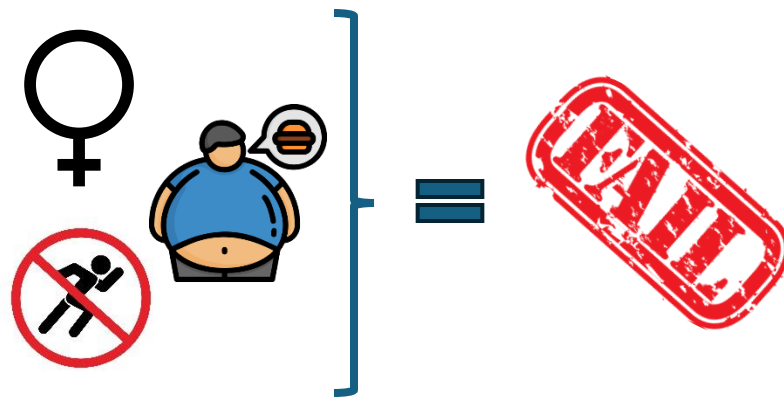
Clinical Implications

- Arthroscopic treatment



- Functional results **persist at 5 years**

Patient selection is key:



- young
- active
- low BMI

repair

reconstruction

athletes
NO ATFL



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Conclusion

- Arthroscopic treatments maintain good results at 5 years
- Reconstructions show better progression over time than repairs
- Key risk factors: high BMI, female gender, lack of sports practice
- Consider these factors when choosing surgical approach

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