Patient Medical Summary

Prepared for Physiotherapy Consultation

Patient: Adam Rotard **Date of birth:** 30 April 1997 (age 29) **Height:** 184 cm **Weight:** 94 kg

BMI: 27.8 **Residence:** Budapest, Hungary

Occupation: Entrepreneur (desk-based, 8-10 h/day computer) **Document date:** 18 June 2026

1. Executive Summary

- **Chief complaints:** Chronic low back pain (since 2022) and sub-occipital neck pain (daily, bilateral).
- **Primary diagnosis:** L5/S1 spondylolysis (stress fracture of L5 posterior arch) with spondylolisthesis (5 mm slip on supine MRI, 8 mm on standing X-ray) and disc protrusion with annulus fibrosus tear (high T2 signal). ICD M51.90
- **Rheumatology findings (Apr 2024):** Suspected Scheuermann's disease, thoracolumbar kyphoscoliosis, generalized hyperlaxity.
- **Extension intolerant profile confirmed:** 7-8/10 pain in extension, 0/10 in flexion.
- **Core instability is the primary factor** — voluntary bracing eliminates pain in ALL provocative tests.
- **Left-side asymmetry throughout:** left ankle restricted (9.5 cm vs 12.75 cm wall test), left psoas tighter (5 cm vs 1-2 cm Thomas test), left hip capsule restricted (FABER), left single-leg squat unstable with knee valgus.
- **Bilateral IT band syndrome** when running (lateral knee pain both sides). Bilateral genu valgum confirmed.
- **Sub-occipital pain** = postural origin. Chain: elevated/tense trapezius → neck muscles → sub-occipitals. Worsened by prolonged sitting. No radiation.
- **Trauma:** Fall from pull-up bar Jan 2024 (~1.5 m at ~105 kg) → intense dorsal pain 2-3 months. Car accident May 2025 → worsened cervical symptoms.
- **Ruled out:** No nerve compression, no flexion intolerance, no load intolerance, no gluteal amnesia. HLA-B27 negative (ankylosing spondylitis unlikely).

2. MRI Images (Lumbar Spine)

MRI performed in supine position. Key findings: L5/S1 spondylolisthesis with disc protrusion and annulus fibrosus tear (high T2 signal zone).

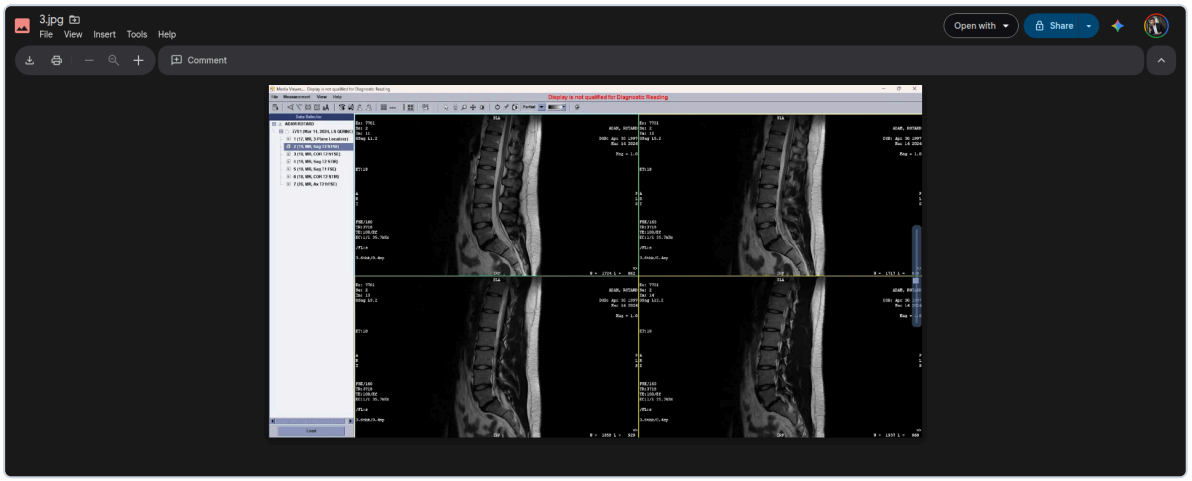

Figure 1 — Sagittal T2 FSE: L5/S1 spondylolisthesis with anterior slip of L5 on S1. Disc protrusion and annulus fibrosus tear visible (high T2 signal).

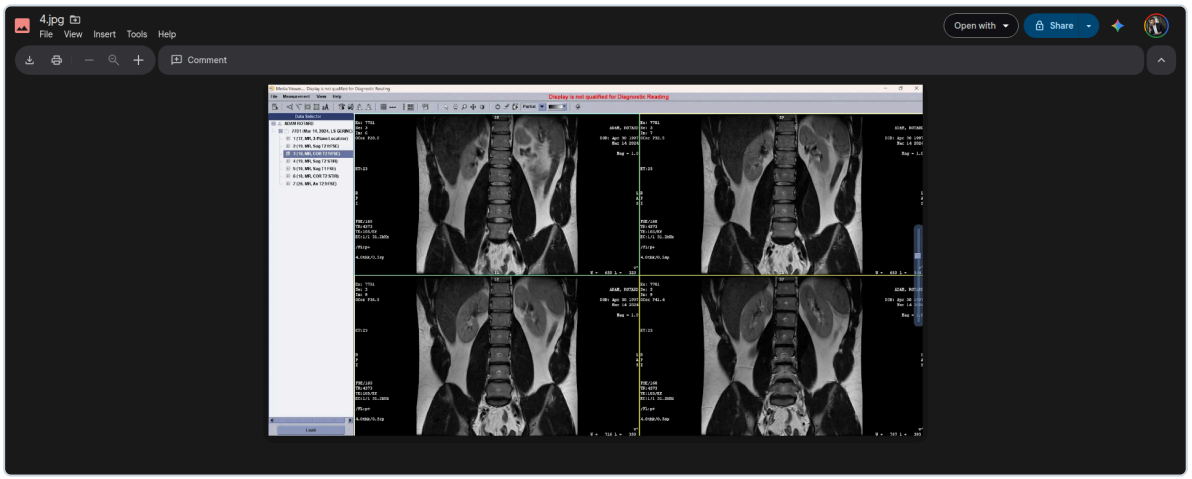

Figure 2 — Coronal T2 MSE: Coronal view of lumbar spine confirming disc pathology at L5/S1 level.

3. Detailed Assessment Results

A. Lumbar Spine

Pathology

- **Spondylolysis:** Stress fracture of L5 posterior arch (pars interarticularis).
- **Spondylolisthesis:** 5 mm anterior slip of L5 on S1 (supine MRI), increasing to 8 mm on standing X-ray (dynamic instability).
- **Disc protrusion** at L5/S1 with annulus fibrosus tear (high T2 signal indicating active inflammation or fluid).
- **Treatment approach:** Physiatrist-managed, non-surgical. Surgery not indicated at this stage.

Pain Profile

Test / Position	Pain Level	Notes
Standing arched (extension)	7-8/10	Primary provocation
Seated pull arched	7/10	Extension intolerant
Prone press-up	5/10 → 3/10	Decreases with repetition
All flexion tests	0/10	No flexion intolerance
Front raise 12 kg	1-2/10	No significant load intolerance
Heel drop (relaxed)	3/10	Impact test
Heel drop (braced)	1/10	Bracing eliminates pain

Key Observations

- Core bracing consistently eliminates or significantly reduces pain in all provocative tests.
- Prolonged static positions (any position) cause pain; alternating positions provides relief.
- Low back pain onset 2022 (Morocco), linked to posture, prolonged sitting, and mental load / stress.
- No gluteal amnesia — glutes fire appropriately when tested.

B. Hips

Test	Right	Left	Interpretation
Thomas test (psoas)	1-2 cm above table	5 cm above table	Bilateral tight psoas, left significantly worse
Thomas test (knee angle)	120°	120°	Bilateral tight rectus femoris

Test	Right	Left	Interpretation
FABER test	15 cm above → ~20 cm (June 2026)	~20 cm above	Bilateral capsular restriction, right worsened
FABER blockage location	Groin (anterior capsule)		Not glute-side, confirms capsular origin
90/90 stretch effect on FABER	No improvement		Confirms capsule restriction, not rotators
Knee-to-chest (June 2026)	Negative both sides		No hip impingement (pulling sensation, no pinch)
Hip external rotation	55°	55°	Symmetric, good ROM
Hip internal rotation	45°	45°	Symmetric, good ROM
Adductors	50-55°	75°	Right significantly restricted
Butterfly position	No pain	Medial knee pain	LCM stress from valgus on the more flexible side

C. Knees

- **Bilateral genu valgum** confirmed by rheumatologist.
- **Bilateral IT band syndrome** when running — lateral knee pain both sides.
- Right knee MRI (Aug 2021): mild joint effusion. Cartilage wear noted by physio.
- Prescribed: 20 min/day stationary bike, no resistance (cartilage preservation).
- Probable mechanism: weak glute medius → TFL compensates → IT band friction over lateral femoral condyle.
- Contributing factor: tight right adductors → knees collapse inward (valgus) during running.

D. Ankles

Test	Right	Left	Interpretation
Wall test (dorsiflexion)	12.75 cm	9.5 cm	Left significantly restricted (normal ~13 cm)
Sprain history	None significant	Multiple untreated since 2018	Chronic left ankle instability (improving)
Suspected cause of restriction	—	Bony spur (articular)	Unlikely to fully resolve with soft tissue work

Kinetic chain implication: Left ankle restriction → reduced squat depth → knee compensates (valgus) → pelvic instability → asymmetric forces on L5/S1.

E. Neck / Cervical Spine

Sub-occipital Pain

- Bilateral pressure-type pain at sub-occipital region, daily, worse at end of day.
- Triggered by prolonged same position (sitting, slouching). Never present lying flat.
- No radiation to temples, eyes, or shoulders.
- Moving head does not change pain intensity.
- Tender points confirmed on palpation (sub-occipital muscles).
- Cervical pain episodes (2-3 since 2025) after heavy training sessions.
- Car accident May 2025 worsened cervical symptoms.

Postural Findings

- Shoulders rounded, head forward posture.
- Right shoulder higher than left (mouse-use pattern, habitual elevation/tension).
- Mild right scapula alata (winging).
- Apley scratch test: approximately 40 cm gap, worse with right hand reaching lower.
- Tension at lower-left of right scapula (rhomboid / lower trapezius area).
- **Pain chain:** trapezius tension → neck muscles → sub-occipitals.

F. Overhead Mobility

- Shoulder overhead wall test: 15 cm gap between arms and ears.
- Lat and thoracic extension restriction → compensates by arching lower back → aggravates extension intolerance.
- T-spine rotation: 45° symmetric, within normal limits.

G. Other Findings

Finding	Details
Left wrist ganglion cyst	Prevents push-ups and weight bearing on left wrist. Surgery is the only definitive option (high recurrence rate).
Right tennis elbow	Chronic (2-3 years), currently mild. Lateral epicondylitis.
Calves	Very tight bilateral.
SLR (straight leg raise)	Right 70°, Left 76°
Generalized hyperlaxity	Confirmed by rheumatologist (Apr 2024).
Footwear	Barefoot shoes since 2024. Previously orthotics (2021-2023) for pronation correction.

Finding	Details
Deep squat	~110° depth (cannot reach 90°), no butt wink, 1/10 pain. Left ankle is the limiting factor.
Single-leg squat	Right: stable. Left: much less stable, reduced depth, knee collapses inward (valgus).

4. Screening Results Summary

Category	Test	Result	Status
Lumbar	Extension pain (standing arched)	7-8/10	Positive
	Flexion pain (all tests)	0/10	Negative
	Load test (front raise 12 kg)	1-2/10	Tolerable
	Heel drop braced vs unbraced	1/10 vs 3/10	Core-dependent
Hips	Thomas test (psoas) L / R	5 cm / 1-2 cm	L asymmetry
	FABER L / R	~20 cm / ~20 cm	Bilateral restriction
	Hip impingement (knee-to-chest)	Negative	Clear
	Adductors R / L	50-55° / 75°	R restricted
Knees	Genu valgum	Bilateral	Confirmed
	IT band syndrome	Bilateral when running	Active
	Joint effusion (R knee MRI 2021)	Mild	Noted
Ankles	Dorsiflexion wall test L / R	9.5 cm / 12.75 cm	L restricted
	Left ankle stability	Chronic instability (improving)	Improving
Cervical	Sub-occipital pain	Daily, bilateral	Chronic
	Scapula alata (R)	Mild	Present
	Apley scratch	~40 cm gap	Restricted
Overhead	Wall test (arms-ears gap)	15 cm	Restricted
	T-spine rotation	45° symmetric	Normal
	SLR L / R	76° / 70°	Acceptable
Functional	Deep squat	~110°, 1/10 pain	Limited by L ankle
	Single-leg squat (L vs R)	L unstable, valgus collapse	L deficit

5. Current Exercise Routine

Daily Mobility (15 min)

- Side lunge
- Half-kneeling hip flexor stretch with posterior pelvic tilt
- Couch stretch (rectus femoris / hip flexor)
- Banded hip mobilization
- Glute bridge
- Kettlebell weight shift
- Hamstring stretch

Daily Stability

- McGill Big Three: curl-up, bird dog, side plank
- Prayer stretch

Weekly Training

Activity	Frequency
Functional training circuits (45 min sessions)	4x / week
Swimming (front crawl)	1-2x / week
Running (5 km)	1x / week

6. Rehabilitation Priorities

Based on Rebuilding Milo screening protocol. Ordered by priority:

#	Priority	Rationale
1	Core stability (McGill Big Three progression)	Bracing eliminates pain — stability deficit is the primary modifiable factor
2	Left hip capsule mobilization	FABER restriction, capsular origin confirmed (90/90 did not help)
3	Psoas / hip flexor stretching (priority left)	Thomas test: left 5 cm above, contributes to anterior pelvic tilt and lumbar extension
4	Left ankle mobilization	9.5 cm dorsiflexion restricts squat, triggers compensatory chain up to L5/S1

#	Priority	Rationale
5	Overhead mobility (foam roller prayer stretch)	15 cm gap, restricted lats/thoracic extension forces lumbar compensation
6	Postural habit correction	Sub-occipital pain driven by prolonged sitting posture and elevated shoulders
7	Walking 3 × 10-15 min/day	Low-intensity movement to prevent static position aggravation

7. Medical History / Other Conditions

Family History

- Type 2 diabetes (maternal side)
- Breast cancer (paternal grandmother)
- Back issues (maternal side)

Metabolic

Condition	Details
Prediabetes	HbA1c 5.9% (2025), 6.1% (2026)
Liver	ALT and GGT elevated. Gilbert syndrome likely. NAFLD possible. Hepatitis B/C negative (HBV vaccinated).
Thyroid	TSH high-normal, 4 mm nodule (benign), TPO antibodies negative.

Rheumatology / Immunology

- HLA-B27 negative (ankylosing spondylitis unlikely).
- Celiac disease excluded (HLA-DQ2/DQ8 negative).
- Generalized hyperlaxity confirmed.

Other

- Right submandibular cyst: 30 × 17 × 15 mm.
- Psoriasis (scalp).
- Excessive sweating since late 2024.
- Left wrist ganglion cyst (limits weight bearing).
- Chronic right lateral epicondylitis (mild currently).

Current Supplements

Omega-3, creatine, vitamin C, vitamin D3 + K2, ashwagandha, zinc, alpha-GPC, magnesium, glucosamine, chondroitin.