ARRIVE Essential 10 item	Item no.	Recommendation	Reported in manuscript
Study design	1	For each experiment, provide brief details of study design including: a. The groups being compared, including control groups. b. The experimental unit.	Reported in **Materials and Methods**, sections **Study Design and Ethical Approval** and **Animals and Experimental Groups**. Four groups were compared according to suprascapular nerve injury and probiotic treatment status. Each animal was accepted as a single experimental unit.
Sample size	2	a. Specify the exact number of experimental units allocated to each group and total number of animals. b. Explain how sample size was decided.	Reported in **Animals and Experimental Groups** and **Power Analysis**. A total of 36 rats were used, with 9 animals per group. Six specimens per group were allocated to histological/immunohistochemical evaluation and three specimens per group to biomechanical testing. Sample size justification and a priori power analysis are reported in the **Power Analysis** section.
Inclusion and exclusion criteria	3	a. Describe inclusion/exclusion criteria. b. Report exclusions. c. Report exact n for each analysis.	Reported in **Animals and Experimental Groups** and **Results**. Male Sprague-Dawley rats aged 10–12 weeks and weighing 250–300 g were included. All 36 animals completed the 21-day observation period without mortality, and no animals were excluded. Exact n values are reported as n=6/group for histological and immunohistochemical analyses and n=3/group for biomechanical testing.
Randomisation	4	a. State whether randomisation was used and method. b. Describe strategy to minimise confounders.	Reported in **Animals and Experimental Groups**. Animals were randomly allocated to four experimental groups using a computer-generated randomization sequence. Specimen allocation to histological/immunohistochemical or biomechanical testing was also reported within each group.
Blinding	5	Describe who was aware of group allocation at different stages.	Reported in **Histological Evaluation** and **Immunohistochemical Evaluation**. Histological assessments were conducted by an independent histologist blinded to group allocation, and immunohistochemical analyses were also performed in a blinded manner.
Outcome measures	6	a. Clearly define all outcome measures. b. Specify primary	Reported in **Abstract**, **Power Analysis**, **Histological Evaluation**,

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		outcome measure used for sample size.	**Immunohistochemical Evaluation**, **Biomechanical Evaluation**, and **Statistical Analysis**. Primary outcome was histological tendon healing assessed using Bonar and Movin scores. Secondary outcomes were TNF-α H-score and biomechanical parameters including failure load, energy to failure, displacement at failure, and axial stiffness.
Statistical methods	7	a. Provide statistical methods, including software. b. Describe assumption testing and approach if assumptions not met.	Reported in **Statistical Analysis**. Normality was assessed using the Shapiro-Wilk test. Bonar and Movin scores were analyzed using Kruskal-Wallis tests followed by Dunn's post-hoc test with Holm correction. TNF-α H-scores and biomechanical parameters were compared using one-way ANOVA with appropriate post-hoc testing. Kruskal-Wallis sensitivity analyses were also performed for biomechanical outcomes because of limited sample size.
Experimental animals	8	a. Provide species, strain, sex, age, weight. b. Provide further relevant information.	Reported in **Animals and Experimental Groups**. Thirty-six male Sprague-Dawley rats aged 10–12 weeks and weighing 250–300 g were used. Experiments were performed at the Acıbadem Experimental Animals Center under institutional and national regulations.
Experimental procedures	9	Describe procedures in enough detail to allow replication: what, how, when, where, and why.	Reported in **Surgical Procedure**, **Probiotic Application**, **Tissue Harvesting**, **Histological Evaluation**, **Immunohistochemical Evaluation**, and **Biomechanical Evaluation**. The manuscript describes anesthesia, antibiotic prophylaxis, suprascapular nerve transection, supraspinatus tendon transection and repair, local probiotic application, postoperative care, euthanasia, tissue harvesting, histological/IHC processing, and biomechanical testing.
Results	10	For each experiment, report summary/descriptive statistics and variability; effect size if applicable.	Reported in **Results**, **Tables 1–3**, and **Figures 5–7**. Descriptive statistics are presented as mean ± standard deviation for histological, immunohistochemical, and biomechanical outcomes. Significant post-hoc comparisons are reported in Table 2. Effect sizes and

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			confidence intervals were not reported because they were not prespecified for this experimental study.