

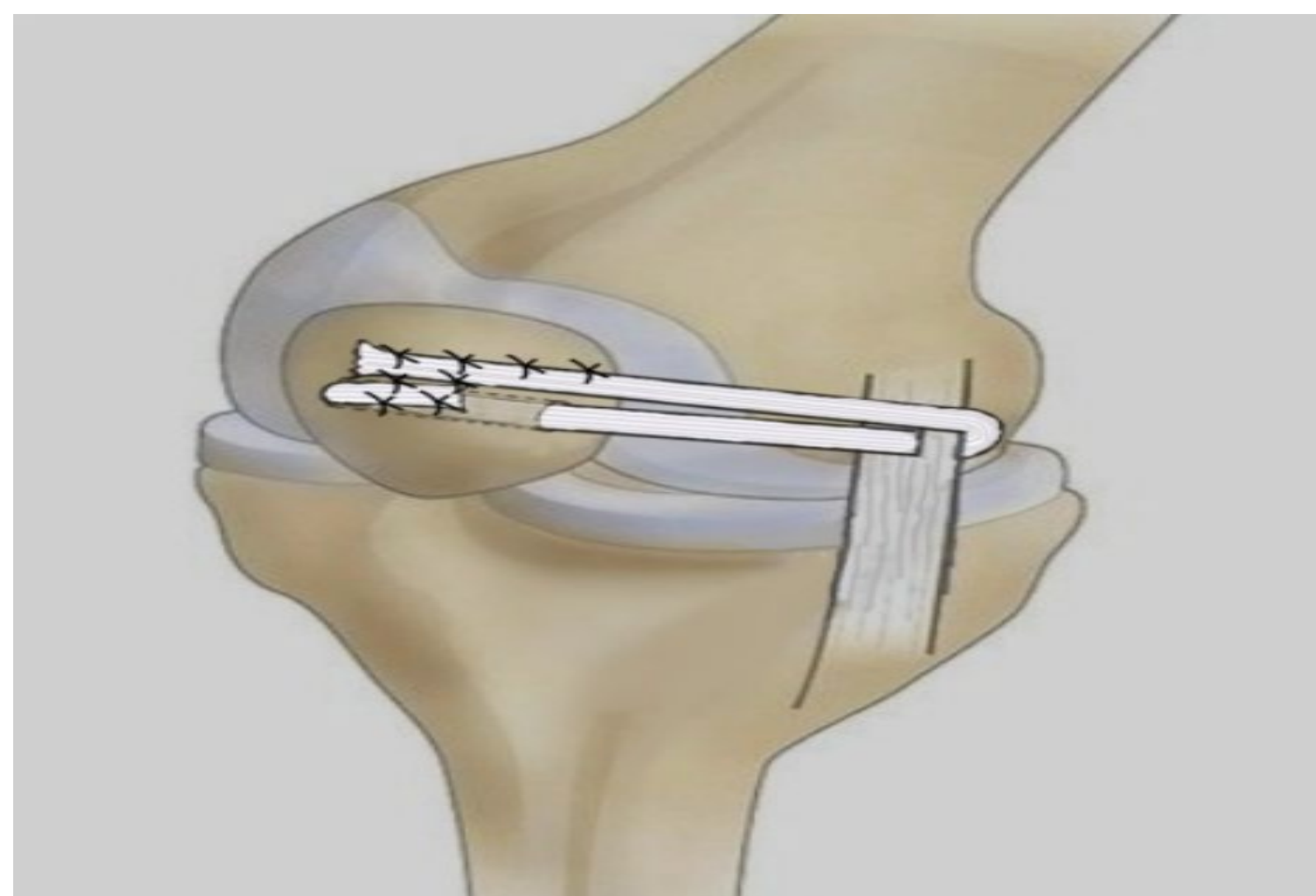
Implications of Optimal Exercise, Intensity, & Duration in the Management of Medial Patellofemoral Ligament Reconstruction: A Case Report

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INTRODUCTION

- ❖ The Medial Patellofemoral Ligament is the most frequently torn ligament in cases of patellar instability
- ❖ Patellar dislocation account for approximately **2-3% of knee injuries** affecting young collegiate athletes
- ❖ MPFL reconstruction has become increasingly utilized for patellar instability for athletes returning to sport.



PURPOSE

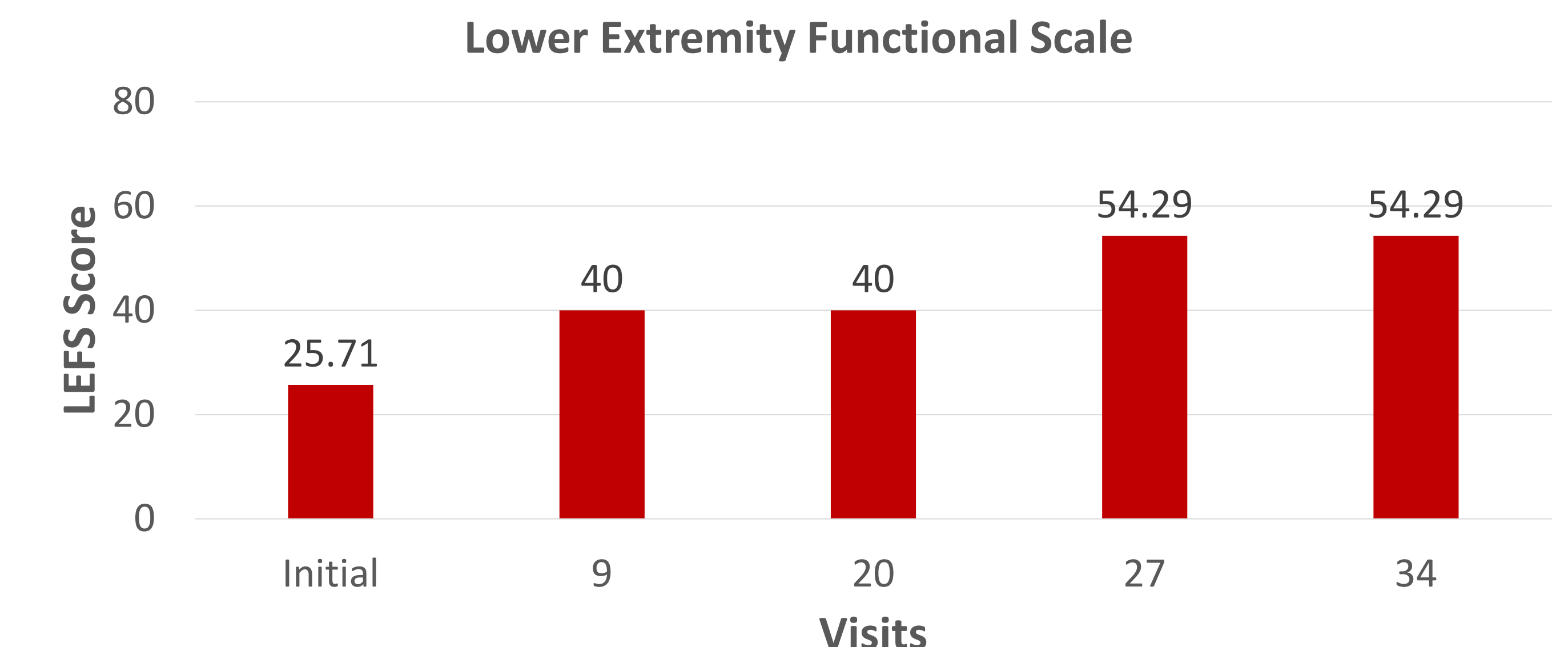
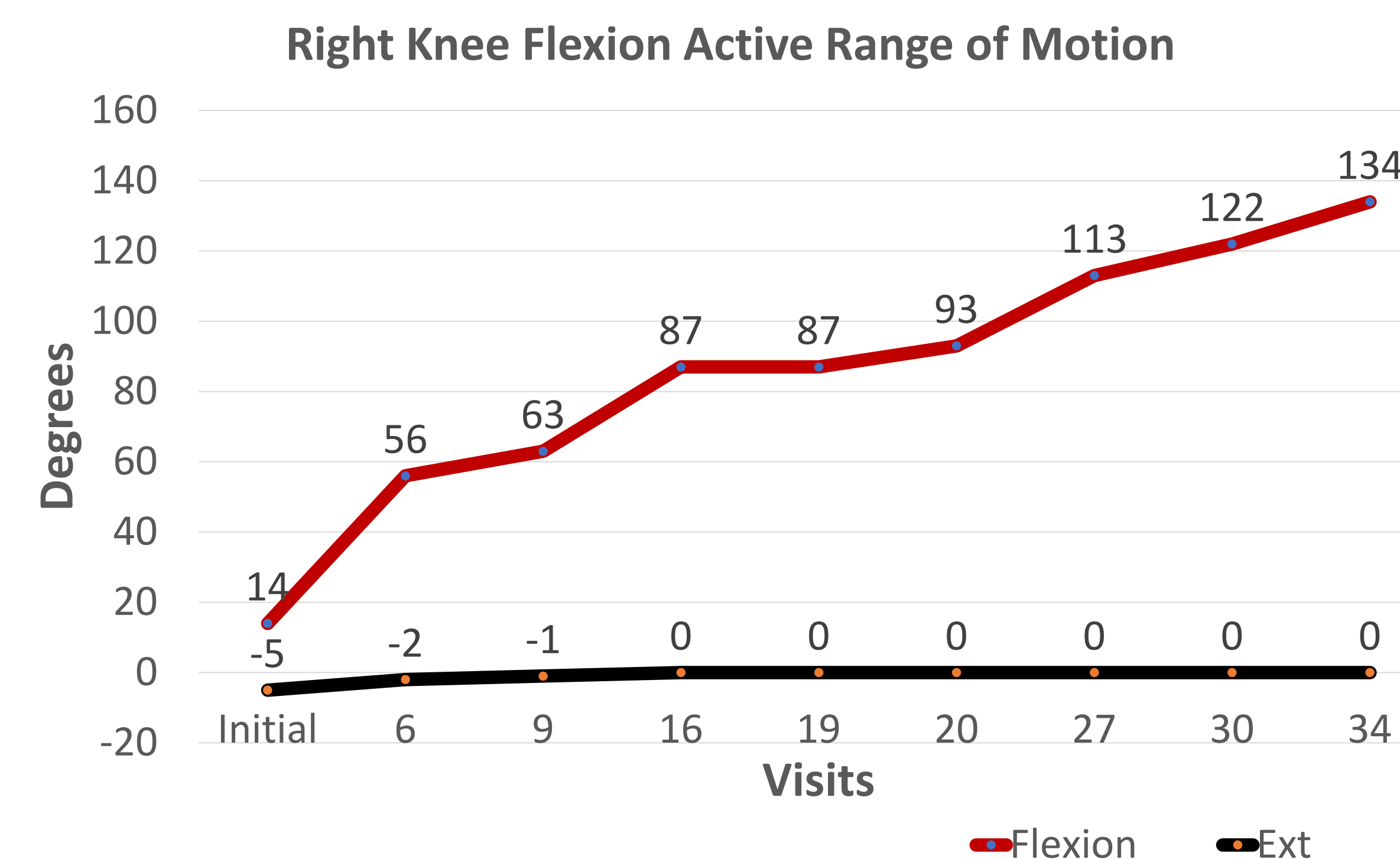
- ❖ To determine the optimal exercise, duration, & intensity of interventions during physical therapy management in a post-op MPFL reconstruction rehabilitation for collegiate athletes returning to sport.

CASE DESCRIPTION

- ❖ 18 y/o Caucasian male collegiate football player presented to physical therapy **3 days post** right knee Medial Patellofemoral Ligament reconstruction following a traumatic injury during football drills.
- ❖ Patient presented with **B axillary crutches** and a knee immobilizer with **WBAT** per protocol.
- ❖ Symptoms reported were **difficulty walking, loss of range of motion, stiffness, swelling, weakness, and feelings of instability.**
- ❖ Patient's goal was to **return to sport.**

OUTCOMES

- ❖ The following are charts depicting the patient's progress throughout treatment from initial evaluation through Visit 34.



CONCLUSIONS

- ❖ Optimal exercise, duration, and intensity is case dependent but making sure patients are meeting goals of each phase before advancing is crucial.
- ❖ Following ACSM guidelines on volume and repetitions for muscular strength and endurance is a good baseline.
- ❖ Due to limitations, clinicians were unable to obtain more specific outcome measures or precise data.
- ❖ Future case studies are recommended to determine optimal exercise, intensity, and duration for return to sport.

DISCUSSION

- ❖ The optimal exercise, duration, and intensity of interventions for MPFL reconstruction for return to sport is **patient dependent.**
- ❖ A volume of 2-4 sets of 10-25 repetitions is recommended for muscular endurance and a volume of 1-3 sets of 8-12 repetitions of 60-70% 1RM for muscular strength.
- ❖ The patient's limitations of ROM were due to not **controlling pain and reducing inflammation.**
- ❖ **weight bearing** exercises to improve **muscular strength and balance** were difficult until full ROM was achieved.
- ❖ **Sport specific training** is patient dependent and was focused on returning to football.

REFERENCES

