## Survivorship and patient-reported outcomes following arthroscopic ligamentum teres reconstruction at minimum 2year follow-up.

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INTRODUCTION: Tears of the ligamentum teres (LT) are common intraoperative findings during hip preservation surgery. Addressing LT lesions surgically with reconstruction is an option to relieve pain and instability. There is a lack of literature on clinical outcomes following LT reconstruction. The purpose of this study is to evaluate minimum 2-year patient-reported outcome (PRO) scores and survival following hip arthroscopy with ligamentum teres (LT) reconstruction.

METHODS: Patients who underwent LT reconstruction during hip arthroscopy surgery performed by the senior author (M.J.P.) between March 2006 and March 2018 were identified. Minimum 2- year PRO scores, including Harris Hip Score (mHHS), Hip Outcome Score Activities of Daily Living (HOS-ADL) and Sport (HOS-Sport), West Ontario and McMaster Universities Arthritis Index (WOMAC), 12-Item Short Form (SF-12) Physical Component Score (PCS) and Mental Component Score (MCS), Tegner Activity Score, and patient satisfaction were collected and analyzed.

RESULTS: Eight patients (9 hips) (100% female, 2 professional athletes) with median age of 31 (range: 25 to 42) and BMI of 20.5 (range: 19-23) met inclusion criteria and were available for follow-up at median 5.3 years. Patients had a median of 1 (range: 0-4) prior hip surgeries. One patient underwent revision surgery, 1 patient required PAO, 1 patient underwent hip resurfacing, and 1 patient underwent total hip arthroplasty at median 1.3 years (range: 1.1 to 6.8) post□operatively. The patient who underwent revision surgery was found to have an intact LT reconstruction. For the 4 patients (5 hips) who did not require subsequent surgery, improvement in median PROs was demonstrated for mHHS (55 (range: 38-92) to 68 (range 61-82), HOS-ADL (69 (range: 40-96) to 79 (range: 48-90), HOS-Sport (33 (range: 5-96) to 72 (range: 19-72)), WOMAC (28 (range: 8-50) to 21 (range: 3-35)), SF-12 PCS (34 (range: 27-43) to 44 (range: 34-58)), and Tegner (2 (range: 1-3) to 6 (range: 2-9)). Median patient satisfaction was 7 (range: 5-8).

DISCUSSION: For patients with an absent or torn LT, LT reconstruction is a salvage procedure that has the potential to restore hip function and improve PROs in patients who have failed conservative care or primary hip arthroscopy.

SIFNIFICANCE/ CLINICAL RELEVANCE: Hip arthroscopy appears to be a successful treatment option for hip instability caused by LT tears.