A 10 Year Review of Flexor Tendon Repair at a Single Institute

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AIM
- A RETROSPECTIVE STUDY LOOKING AT ALL FLEXOR TENDON INJURIES REPAIRED AT THE ROYAL DEVON AND EXETER NHS FOUNDATION TRUST OVER THE PAST 10 YEARS FROM THE 1ST OF JANUARY 2006 TO 31ST OF DECEMBER 2015
- OUTCOME MEASURES ASSESSED WERE THE TYPE OF REPAIR USED AND OUR RUPTURE RATES
- 100% ZONE 2 INJURIES BETWEEN 2012 AND 2015 WERE ANALYZED

METHODS
- HAND THERAPY NOTES FOR ALL FLEXOR TENDON INJURIES WERE REVIEWED THAT INVOLVED FLEXOR TENDON INJURIES GREATER THAN 30% IN ZONES 1-5 FROM THE PERIOD OF 1ST OF JANUARY 2006 UP TO 31ST OF DECEMBER 2015
- EXCLUSION CRITERIA:
  - Polytrauma patients
  - Re-repairs
  - Tendon reconstructions
  - Zone 6 and muscle belly injuries
  - Flexor pollicis longus repairs
- PATIENT DETAILS AND THE DATA WERE COLLECTED FROM THE PATIENTS' NOTES, MICROSOFT ACCESS® AND REVIEWED IN MICROSOFT EXCEL®
- ACCURATE INFORMATIVE DATA FOR ZONE 2 REPAIRS WERE ONLY AVAILABLE FROM 2012 ONWARDS

RESULTS
- TOTAL OF 503 PATIENTS WITH 667 INJURED DIGITS.
- TOTAL OF 941 TENDON REPAIRS TOOK PLACE OVER A 10 YEARS PERIOD AT THE ROYAL DEVON AND EXETER HOSPITAL.
- 396 FLEXOR DIGITITORUM SUPERFICIALIS REPAIRS AND 545 FLEXOR DIGITITORUM PROFUNDUS REPAIRS
- ZONE 2 REPAIRS BETWEEN 2012 AND 2015 ACCOUNTED FOR 131
- THE MOST COMMON REPAIR BY FAR WAS A MODIFIED KESSELER REPAIR AND THERE WAS A FAIRLY EQUAL NUMBER OF 2 STRAND VERSUS 4 STRAND REPAIRS
- NEARLY ALL REPAIRS INCLUDED AN EPITENDINOUS REPAIR
- UNFORTUNATELY, IN 122 REPAIRS, THE TYPE OF REPAIR WAS NOT STATED IN THE OPERATION NOTE OR THE HAND THERAPY NOTES
- TOTAL RUPTURES OVER THE 10 YEAR PERIOD WERE 53 RUPTURED TENDONS OUT OF A TOTAL OF 940 TENDONS REPAIRED, PUTTING OUR RUPTURE RATE AT 5.6%

CONCLUSION
- THE REPORTED RATE OF FLEXOR TENDON RUPTURE IS VARIED IN THE LITERATURE. TANG ET. AL(1) REPORT THE USUAL RUPTURE RATE FOR DIGITS IS 4-10%. AS PART OF ADHERING TO GUIDELINES AND BEST PRACTICE WE ADVISE REGULAR ANALYSIS OF RESULTS WITH THE AIM OF IMPROVING AND MINIMIZING COMPLICATIONS
- OUR STUDY DID NOT FIND A SIGNIFICANT DIFFERENCE IN RUPTURE BETWEEN A 2 AND A 4 STRAND REPAIR HOWEVER WE ACCEPT THAT THE MODERN GOLD STANDARD IS A 4 STRAND REPAIR
- IT IS OF NOTE THAT THE RUPTURE RATE STEADILY FELL EVERY YEAR FROM 2006 TO 2015

References