



APPLICATION OF FREEZE-DRIED AMNIOTIC MEMBRANE INCREASING FUNCTIONAL OUTCOME IN HAND FLEXOR TENDON REPAIR

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SUMMARY

Background: Functional limitation of hand function due to adhesion is a common complication after flexor tendon repair. This study compares the hand functional score after flexor tendon repair with and without freeze-dried amnion. **Material & Method:** A cohort retrospective study of hand flexor tendon repair cases using Kessler technique modification by Hand surgeon in Surabaya was performed from July 2008 until July 2012. The samples were divided into group I (non-freeze-dried amnion group) and group II (freeze-dried amnion group) and followed by rehabilitation program using passive flexion-active extension exercise on the third day after surgery. The function of hand was calculated by TAM score and DASH score. **Result:** Seventeen patients (25 fingers) were reviewed with the distribution of 14 (56%) in group I and 11 (44%) in group II, 70,6% of male and 29,4% of female with aged 11-58. From zone of injury, we found 64% in zone II, 8% in zone III, and 28% in zone V. TAM score was 94% (89-100) and DASH score was 0 (0-1,5) in group I, while TAM score was 88,5% (28-100) and DASH score was 0 (0-1,67) in group II. **Discussion:** Freeze-dried amnion acts as anti-inflammatory and as tendon sheath barrier. Therefore, freeze-dried amnion application in flexor tendon after repair was significant increase of the function of the hand with TAM score and DASH score having statistical difference ($P < 0,05$). **Conclusion:** The application of freeze-dried amnion in flexor tendon repair improve functional quality in hand motion.