

## Original Research Article

# Outcomes of early active mobilization after surgical repair of injured extensor tendon of hand and forearm

Sujit Kundu<sup>1\*</sup>, Shawon Dutta<sup>2</sup>, Mohammed Amirul Islam<sup>3</sup>, Daniul Alam<sup>4</sup>

<sup>1</sup>Department of Orthopaedic, National Institute of Traumatology and Orthopaedic Rehabilitation (NITOR), Dhaka, Bangladesh

<sup>2</sup>Department of Spine Surgery, National Institute of Traumatology and Orthopaedic Rehabilitation (NITOR), Dhaka, Bangladesh

<sup>3</sup>Department of Paediatric Orthopaedic, Chandpur Medical College, Chandpur, Bangladesh

<sup>4</sup>Department of Orthopaedic, Khulna Medical College, Khulna, Bangladesh

**Received:** 13 December 2023

**Revised:** 26 December 2023

**Accepted:** 28 December 2023

### \*Correspondence:

Dr. Sujit Kundu,  
E-mail: [drsk008@gmail.com](mailto:drsk008@gmail.com)

**Copyright:** © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

## ABSTRACT

**Background:** Extensor tendon injuries in the hand and forearm, if left untreated, can significantly impair backhand function. Timely and effective treatment is crucial. Recent evidence suggests that early active mobilization post-surgery yields better short-term outcomes, with less disparity in long-term results.

**Methods:** This prospective observational study was conducted at the department of orthopedic surgery, BSMMU, Dhaka, Bangladesh, from March 2014 to August 2016, with a total of 40 patients.

**Results:** The study evaluated the efficacy of early active mobilization following surgical repair of extensor tendon injuries in zones V-VIII of the hand and forearm. At 12 weeks post-surgery, 75% of patients reported no pain, increasing to 90% at 6 months and stabilizing at 85% by 12 months. Furthermore, 75% of patients regained a range of motion greater than 120 degrees at 6 months, with 60% maintaining this at 12 months. Notably, 90% of the patients maintained normal grip strength at both 6 and 12 months. Final assessments using the Mayo wrist score showed satisfactory outcomes for 70% of patients at 12 weeks, 90% at 6 months, and 95% at 12 months. The Dargan criteria echoed these positive results, with satisfaction rates of 80% at 12 weeks, 90% at 6 months, and 95% at 12 months. Complications were minimal, including superficial skin infections (5%), hypertrophic scars (10%), and tendon rupture (5%).

**Conclusions:** The study concludes that early active mobilization, complemented by a simple static splint, facilitates faster recovery, full range of motion, improved grip strength, and earlier return to work in the early postoperative period.

**Keywords:** Early active mobilization, EAM, Surgical repair, Extensor tendon, Hand and forearm

## INTRODUCTION

The hand serves as a vital medium for interaction with the external world, facilitating prehensile movements, grasp, pinch, and hook-action.<sup>1</sup> Recognized not only as a sophisticated tool but also as an organ of communication, the hand holds a prominent place in our awareness, surpassing other body parts. Tendon injuries, the second most common type of hand injuries, are significant in

trauma and orthopedic care.<sup>2</sup> Among these injuries, extensor tendon injuries surpass flexor tendon injuries in frequency, attributed to their less protected superficial location and lack of coverage by subcutaneous tissue.<sup>3,4</sup> Extensor tendon injuries, despite their prevalence, are relatively underrepresented in scientific literature.<sup>5</sup> If inappropriately treated, these injuries can lead to significant and lasting impairment of hand function.<sup>6</sup> Therefore, it is crucial to implement proper treatment

strategies to achieve optimal hand function and facilitate an early return to work.<sup>7</sup> Kleinert and Verdan introduced a widely accepted classification system for extensor tendon lacerations, categorizing them into eight zones across the hand, wrist, and forearm.<sup>8</sup> The zones include four odd-numbered zones overlying joints and four even-numbered zones overlying intervening tendon segments, progressing from distal to proximal. Extensor tendon injuries were most common in Verdan's zone 1, followed by zone 6, while less frequent injuries occurred in zones 3 and 5. Complex injuries were more prevalent in zones 3 and 6.<sup>9</sup> In a retrospective analysis of 62 patients with 101 extensor tendon injuries, it was found that patients without associated injuries achieved 64% good/excellent results and a total active motion of 212 degrees, with distal zones (I to IV) exhibiting poorer results compared to proximal zones (V to VIII).<sup>6</sup> The debate over the rehabilitation of extensor tendon repairs in zones V-VIII has revolved around the choice between complete immobilization or early active mobilization. During the study, 22 patients with 58 injured tendons were included in group A (static splinting), while 23 patients with 61 injured tendons were included in group B (EAM). Significant differences were observed between group A and group B concerning Total Active Motion (TAM) at 4, 6, 8, and 12 weeks ( $p < 0.01$ ), indicating that patients with early motion had superior results. However, this advantage was not maintained at 6 months.<sup>7</sup> Repaired extensor tendons are typically immobilized postoperatively in static splints for several weeks. Upon splint removal, extensor lag may occur at the metacarpophalangeal (MP) or interphalangeal (IP) joints, and composite IP and MP flexion can be challenging due to tendon adhesions.<sup>10</sup> The objective of this study was to assess the outcomes of early active mobilization after surgical repair of the injured extensor tendon of the hand and forearm.

## METHODS

This was a prospective observational study that was conducted in the department of orthopedic surgery, Bangabandhu Sheikh Mujib medical university (BSMMU), Dhaka, Bangladesh from March 2014 to August 2016. In this study, 40 patients with extensor tendon injuries in zones V-VIII were enrolled using purposive sampling. The study received approval from the hospital's ethical committee, and written consent was obtained from all participants before data collection. Inclusion criteria encompassed patients aged 11 to 60 years, of both sexes, with extensor tendon injuries in zone V-VIII of the hand and forearm (thumb zone III-VI corresponding to hand zone V-VIII). Well-motivated and well-informed patients with extensor tendon injuries of less than 6 weeks duration and no evidence of motor involvement of the median, radial, and ulnar nerves were included. The exclusion criteria for this study involved patients with extensor tendon injuries lasting more than 6 weeks, stiff joints associated with hand bone fractures, infections, non-compliance, medical problems such as epilepsy, and paralyzed hands. The outcomes were

assessed by Mayo wrist score, and Dargan criteria assessment.<sup>11,12</sup> The study recorded and processed all demographic and clinical information using MS office tools.

## RESULTS

This study revealed a majority of patients (65%) were aged 21-30, with a mean age of  $28.3 \pm 12.6$  years. Males constituted 65%, and females 35%. Regarding side involvement, injuries were predominantly on the right hand (70.0%). During the evaluation of the injury zone, it was noted that the majority of patients (50.0%) had injuries in zone VI. In the analysis of patients with wrist drops, it was noted that 25.0% exhibited this condition. Regarding the distribution of study patients by finger drop, it was observed that 30.0% had more than one finger drop, while another 30.0% experienced more than two finger drops. In this study, as per the per-operative findings, the extensor digitorum communis (EDC) for the middle finger showed that 35% of cases had intact tendons, while 65% had cut tendons. Similarly, for the extensor indicis proprius (EIP), 45% had intact tendons, and 55% had cut tendons. The distribution for the EDC of the index, ring finger, and little finger demonstrated similar trends, with intact tendons ranging from 40% to 85%, and cut tendons ranging from 15% to 60%. For the extensor digiti minimi (EDM), extensor carpi radialis longus (ECRL), extensor carpi radialis brevis (ECRB), extensor pollicis longus (EPL), and extensor carpi ulnaris (ECU), the percentages of intact tendons ranged from 75% to 85%, while cut tendons ranged from 15% to 25%. The majority of patients had a postoperative hospital stay of 2-3 days, constituting 45.0%. Postoperative splinting for up to 6 weeks was observed in all 20 (100.0%) cases. In terms of patient complications, patients exhibited 5.0% with superficial skin infection, 10.0% with hypertrophic issues, and 5.0% with tendon rupture. Among our participants, 2 patients had dropped out by the 6<sup>th</sup> month in the assessment of pain intensity using the Mayo wrist score. At 12 weeks, the majority (75.0%) reported no pain, increasing to 90.0% at 6 months and 85.0% at 12 months. Upon analyzing the functional status using the Mayo wrist score, it was observed that, at 12 weeks, 60.0% of the cases faced restricted employment. At 6 months, the majority (75.0%) returned to regular employment, and at 12 months, 85.0% resumed regular employment. In evaluating the range of motion using the Mayo wrist score, at 12 weeks, 55.0% of patients had a range of motion of 90-120 degrees. At 6 months, the majority (75.0%) achieved a range greater than 120 degrees, and at 12 months, 60.0% had a range greater than 120 degrees, with 85.0% returning to this range. According to the assessment by Mayo wrist score, at 12 weeks, the majority (40.0%) had a good outcome, while at 6 months, 40.0% achieved excellence. At 12 months, 85.0% were rated as excellent. In this series, concerning the percentage of normal grip strength according to the Mayo Wrist Score, at 12 weeks, the majority (90.0%) of cases demonstrated grip strength  $> 75\%$ . At 6 months and 12 months, 90.0% maintained

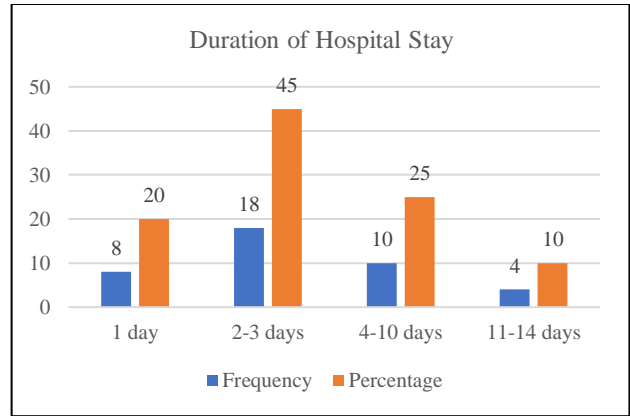
normal grip strength. In the final assessment using the Mayo wrist score, at 12 weeks, 70.0% of patients achieved a satisfactory outcome. At 6 months, this increased to 90.0%, and at 12 months, 95.0% of patients demonstrated a satisfactory result. In this study, the final assessment by Dargan criteria revealed that at 12 weeks, 80.0% of patients achieved a satisfactory outcome. At 6 months, this increased to 90.0%, and at 12 months, 95.0% of patients demonstrated a satisfactory result.

**Table 1: Baseline characteristics of the participants.**

Baseline characteristics	N	Percentage (%)
<b>Side involved</b>		
Right hand	28	70
Left hand	12	30
<b>Zone of injury</b>		
Zone V	8	20
Zone VI	20	50
Zone VII	6	15
Zone VIII	6	15
<b>Wrist drop</b>		
Present	10	25
Absent	30	75
<b>Finger drop</b>		
Index	4	10
Middle	2	5
Ring	2	5
Little	0	0
Thumb	0	0
> one finger	12	30
> two fingers	12	30
> Three fingers	8	20

**Table 2: Distribution of patients by per-operative findings.**

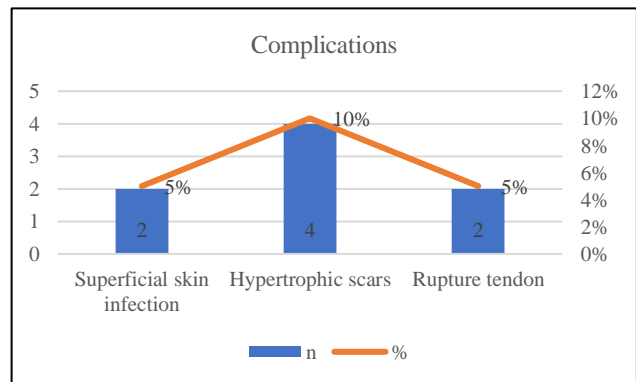
Per-operative findings	N	Percentage (%)
<b>EDC of middle finger</b>	Intact	14 35
	Cut	26 65
<b>EIP</b>	Intact	18 45
	Cut	22 55
<b>EDC for index</b>	Intact	16 40
	Cut	24 60
<b>EDC for ring finger</b>	Intact	22 55
	Cut	18 45
<b>EDC for little finger</b>	Intact	34 85
	Cut	6 15
<b>EDM</b>	Intact	34 85
	Cut	6 15
<b>ECRL</b>	Intact	30 75
	Cut	10 25
<b>ECRB</b>	Intact	30 75
	Cut	10 25
<b>EPL</b>	Intact	32 80
	Cut	8 20
<b>ECU</b>	Intact	32 80
	Cut	8 20



**Figure 1: Duration of postoperative hospital stay.**

**Table 3: Duration of splinting.**

Follow up (Weeks)	N	Percentage (%)
<b>Postoperative splinting</b>		
<6 weeks	0	0
Up-to 6 weeks	20	100



**Figure 2: Distribution of the study patients according to complications.**

**Table 4: Distribution of patients according to Mayo wrist score (Pain intensity).**

Pain intensity	N	Percentage (%)
<b>At 12 weeks</b>		
No pain	30	75
Mild occasional	10	25
Moderate, tolerable	0	0
Severe to intolerable	0	0
<b>At 6<sup>th</sup> months</b>		
No pain	36	90
Mild occasional	2	5
Moderate, tolerable	0	0
Severe to intolerable	0	0
<b>At 12<sup>th</sup> months</b>		
No pain	38	95
Mild occasional	0	0
Moderate, tolerable	0	0
Severe to intolerable	0	0

**Table 5: Distribution of the patients according to Mayo wrist score (Functional status).**

Functional status	N	Percentage (%)
<b>At 12 weeks</b>		
Returned to regular employment	12	30
Restricted employment	24	60
Able to work but unemployed	4	10
Unable to work because pain	0	0
<b>At 6<sup>th</sup> months</b>		
Returned to regular employment	30	75
Restricted employment	6	15
Able to work but unemployed	2	5
Unable to work because pain	0	0
<b>At 12<sup>th</sup> months</b>		
Returned to regular employment	34	85
Restricted employment	4	10
Able to work but unemployed	0	0
Unable to work because of pain	0	0

**Table 6: Distribution of the patients according to Mayo wrist score (Range of motion).**

Range of motion	N	Percentage (%)
<b>At 12 weeks</b>		
Greater than the 120 degrees	14	35
90-120 degrees	22	55
60- 90 degrees	4	10
30-60 degrees	0	0
<30 degrees	0	0
<b>At 6<sup>th</sup> months</b>		
Greater than the 120 degrees	30	75
90-120 degrees	6	15
60- 90 degrees	2	5
30-60 degrees	0	0
<30 degrees	0	0
<b>At 12<sup>th</sup> months</b>		
Greater than the 120 degrees	34	85
90-120 degrees	4	10
60- 90 degrees	0	0
30-60 degrees	0	0
<30 degrees	0	0

**Table 7: Distribution of patients as per Mayo wrist score (Grip strength % of normal).**

Grip strength % of normal	N	Percentage (%)
<b>At 12 weeks</b>		
100%	12	30
75-100%	24	60
50-75%	4	10
25-50%	0	0
0-25%	0	0
<b>At 6<sup>th</sup> months</b>		
100%	26	65
75-100%	10	25
50-75%	2	5
25-50%	0	0
0-25%	0	0
<b>At 12<sup>th</sup> months</b>		
100%	32	80
75-100%	6	15
50-75%	0	0
25-50%	0	0
0-25%	0	0

**Table 8: Overall assessment by Mayo wrist score.**

Assessment by Mayo wrist score	N	Percentage (%)
<b>Assessment at 12<sup>th</sup> weeks</b>		
Excellent	12	30
Good	16	40
Fair	12	30
Poor	0	0
<b>Assessment at 6<sup>th</sup> months</b>		
Excellent	28	70
Good	8	20
Fair	2	5
Poor	0	0
<b>Assessment at 12<sup>th</sup> months</b>		
Excellent	34	85
Good	4	10
Fair	0	0
Poor	0	0

**Table 9: Final assessment by Mayo wrist score.**

Final assessment	N	Percentage (%)
<b>Assessment at 12<sup>th</sup> weeks</b>		
Satisfactory	28	70
Unsatisfactory	12	30
<b>Assessment at 6<sup>th</sup> months</b>		
Satisfactory	36	90
Unsatisfactory	2	5
<b>Assessment at 12<sup>th</sup> months</b>		
Satisfactory	38	95
Unsatisfactory	0	10

**Table 10: Assessment by Dargan criteria.**

Assessment by Dargan criteria	N	Percentage (%)
<b>Assessment at 12<sup>th</sup> weeks</b>		
Excellent	14	35
Good	18	45
Fair	8	20
Poor	0	0
<b>Assessment at 6<sup>th</sup> months</b>		
Excellent	26	65
Good	10	25
Fair	2	5
Poor	0	0
<b>Assessment at 12<sup>th</sup> months</b>		
Excellent	30	75
Good	8	20
Fair	0	0
Poor	0	0

**Table 11: Final assessment by Dargan criteria.**

Final assessment by Dargan criteria	N	Percentage (%)
<b>Assessment at 12<sup>th</sup> weeks</b>		
Satisfactory	32	80
Unsatisfactory	8	20
<b>Assessment at 6<sup>th</sup> months</b>		
Satisfactory	36	90
Unsatisfactory	2	5
<b>Assessment at 12<sup>th</sup> months</b>		
Satisfactory	38	95
Unsatisfactory	0	10

## DISCUSSION

In our study, postoperatively, the splint prepared with plaster of Paris bandage was based on the Norwich regimen, a method also utilized by Saini et al and Sylaidis et al in their studies.<sup>13,14</sup> The majority (70%) of injuries in our study involved the dominant right hand. This aligns with the findings of Saini et al where the dominant hand was involved in 62% of cases.<sup>13</sup> Zone VI injuries were the most common in our series, constituting 50% of our patients. This was comparable to the study by Saini et al where extensor Zone VI injuries accounted for 42%.<sup>13</sup> Howell et al reported that the most common zones of injury were in zone 5, followed by zones 4 and 6.<sup>15</sup> In the current study, the time interval between injury and operation was most frequently 2-14 days, consistent with the findings of Howell et al who reported an average of 2.3 days from injury to tendon repair.<sup>15</sup> In this series, among 69 tendon injuries, the EDC was the most commonly affected tendon, accounting for 37 (53.62%) cases. The next most common were EIP, ECRL, and ECRB, with 11 (15.94%), 7 (10.14%), and 5 (7.24%) cases, respectively. In comparison, the study by Saini et al reported that among the affected tendons, EDC (81%) was the most commonly affected, followed by extensor indicis (EI) (46%) and EPL

(31%).<sup>13</sup> Slater and Bynum found that in their study of 55 patients, EDC was affected in 27 cases (49.1%), with other tendons such as EPL, EI, and extensor pollicis brevis (EPB) also being affected in varying proportions.<sup>16</sup> In the present study, the majority of patients in the early active mobilization (EAM) group had a postoperative hospital stay of 2-3 days, accounting for 45.0% of cases. This difference was not statistically significant ( $p > 0.05$ ) between the two groups.<sup>7</sup> These results were similar to the study by Patil and Koul where all patients were considered as outpatients from the 3<sup>rd</sup> postoperative day onward. The study also reported that 5.0% of cases had superficial skin infection, 10.0% had hypertrophic scarring, and 5.0% had tendon rupture. Another study with 100 subjects reported only three cases of tendon re-ruptures, accounting for 3%, with two in the EAM group and one in the dynamic splinting group. Additionally, there were two cases of cellulitis, one in the EAM group and one in the dynamic splinting group.<sup>17,18</sup> In this study, at the 12th week, the majority (75.0%) of patients reported no pain, and at 6 months, 90.0% were pain-free. At 12 months, 85.0% of patients reported no pain. The pain intensity at 12 weeks and 6 months was statistically significant ( $p < 0.05$ ). A study by Patil and Koul reported that patients in group A experienced pain, with many having severe pain requiring medication from the fifth week onwards. They struggled with the scheduled mobilization time (10 minutes) due to pain.<sup>7</sup> However, in group B, patients complained of pain only up to 2 weeks, and from the fourth week onwards, they had significantly less pain. In this study, within 12 weeks, 100% of patients were able to work. Sylaidis et al reported an average return to work at 6 weeks with the Norwich regimen, while Bruner et al reported a return to work at 10 weeks.<sup>14,19</sup> Grip strength was observed to be significant at 12 weeks and 6 months in this series. Mowlawi et al reported in their study that the dynamic splinting group had better grip strength than static immobilization at 8 weeks but not at 6 months.<sup>21</sup> One patient dropped out in the present study at 6 months, similar to the study by Patil and Koul where most patients reported for long-term follow-up (6 months) with three patients lost to long-term follow-up (7.5%).<sup>7</sup> In this study, according to Dargan criteria, the final assessment at 12 weeks showed satisfaction in 16 (80.0%) patients, at 6 months in 18 (90.0%) patients, and 12 months in 19 (95.0%) patients. Mowlawi et al conducted a prospective randomized trial comparing dynamic extension splinting (DES) to static splinting and found significantly better total active motion (TAM) and grip strength in the DES group at 8 weeks.<sup>21</sup> However, by 6 months, no differences were seen between groups. Chow et al also experienced disappointing results; they found markedly better results with the dynamic extension splint (DES) protocol.<sup>10</sup> According to Dargan's criteria, 100% of patients treated with DES achieved excellent results by 6 weeks, whereas only 40% achieved excellent results with static splinting at a mean follow-up of 13 weeks. These results are also comparable with those of Patil and Koul who showed that overall hand function in patients undergoing early motion (group B) up to 12 weeks was significantly better

compared to patients undergoing immobilization (group A) ( $p < 0.01$ ).<sup>7</sup>

### Limitations

The study population was drawn from a single hospital in Dhaka city, limiting the generalizability of the results to the entire country. Additionally, the small sample size is a limitation of the present study. Future research with a larger sample size is recommended to provide a more comprehensive understanding.

### CONCLUSION

Early active mobilization with a simple static splint after extensor tendon repair leads to faster recovery, aiding patients in achieving a complete range of motion sooner and improving grip strength. The adoption of an EAM protocol demonstrates better outcomes in the management of extensor tendon injuries. It is crucial for surgeons involved in handling such cases, including tendon repair and nerve repair, to be well-versed in the fundamental techniques for optimal patient care.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: The study was approved by the Institutional Ethics Committee*

### REFERENCES

- Solomon L, Warwick D, Nayagam S. Apley's system of orthopaedics and fracture', 9<sup>th</sup> ed. London: Hodder Arnold. 2010;413-37.
- Schoffl V, Heid A, Küpper T. Tendon injuries of the hand. World J Orthop. 2012;3(6):62-9.
- Hague MF. The results of tendon suture of the hand: a review of 500 patients. Acta Orthop Scand. 1954;24(3):258.
- Crosby CA, Wehbe MA. Early protected motion after extensor tendon repair. J Hand Surg. 1999;24(5):1061-70.
- Dy CJ, Rosenblatt L, Lee SK. Current methods and biomechanics of extensor tendon repair. Hand Clin. 2013;29(2):261-8.
- Griffin M, Hindocha S, Jordan D, Saleh M, Khan W. Management of Extensor Tendon Injuries. Open Orthop J. 2012;6:36-42.
- Patil RK, Koul AR. Early active mobilisation versus immobilisation after extrinsic extensor tendon repair: A prospective randomised trial. Indian J Plast Surg. 2012;45(1):29-37.
- Kleinert HE, Verdan C. Report of the committee on tendon injuries. J Hand Surg. 1983;8(5pt2):794.
- Carl HD, Forst R, Schaller P. Results of primary extensor tendon repair in relation to the zone of injury and pre-operative outcome estimation. Arch Orthop Trauma Surg. 2007;127(2):115-9.
- Chow JA, Dovel S, Thomes LJ, Ho PK, Saldana J. A comparison of results of extensor tendon repair followed by early controlled mobilisation versus static immobilization. J Hand Surg Br. 1989;4(1):18-20.
- Amadio PC, Berquist TH, Smith DK, Ilstrup DM, Cooney WP, Linscheid RL. Scaphoid malunion. J Hand Surg. 1989;14(4):679-87.
- Dargan EL. Management of extensor tendon injuries of the hand. Surg Gynecol Obstet. 1969;128(6):1269.
- Saini N, Sharma M, Sharma VD, Patni P. Outcome of early active mobilization after extensor tendon repair. Indian J Orthop. 2008;42(3):336-41.
- Sylaidis P, Youatt M, Logan A. Early active mobilization for extensor tendon injuries: the Norwich regime. J Hand Surg Br. 1997;22(5):594-6.
- Howell JW, Merritt WH, Robinson SJ. Immediate controlled active motion following zone 4-7 extensor tendon repair. J Hand Ther. 2005;18(2):182-90.
- Slater RR, Bynum DK. Simplified functional splinting after extensor tenorrhaphy. J Hand Surg Am. 1997;22(3):445-51.
- Khandwala AR, Webb J, Harris SB, Foster AJ, Elliot D. A comparison of dynamic extension splinting and controlled active mobilization of complete divisions of extensor tendons in Zones 5 and 6. J Hand Surg. 2000;25B:140-6.
- Chester DL, Beale S, Beveridge L, Nancarrow JD, Titley OG. A prospective, controlled, randomized trial comparing early active extension with passive extension using a dynamic splint in the rehabilitation of repaired extensor tendons. J Hand Surg Br. 2002;27(3):283-8.
- Bruner S, Wittemann M, Jester A, Blumenthal K, Germann G. Dynamic splinting after extensor tendon repair in zones V to VII. J Hand Surg Br. 2003;28(3):224-7.
- Bulstrode NW, Burr N, Pratt AL, Grobbelaar AO. Extensor tendon rehabilitation a prospective trial comparing three rehabilitation regimes. J Hand Surg Br. 2005;30(2):175-9.
- Mowlavi A, Burns M, Brown RE. Dynamic versus static splinting of simple zone V and zone VI extensor tendon repairs: a prospective, randomized, controlled study. Plast Reconstr Surg. 2005;115(2):482-7.

**Cite this article as:** Kundu S, Dutta S, Islam MA, Alam D. Outcomes of early active mobilization after surgical repair of injured extensor tendon of hand and forearm. Int J Res Orthop 2024;10:29-34.