Traumatology and Orthopaedics of Kazakhstan
ISSN - e2789-9640

Original article

An Unconventional Method of the Treatment of Scaphoid Nonunions

Irakli Goginava[1*], Sergey Goloborodko [2], Mariya Riezunenko [3]

[1] Head of the Department of Pelvic Fractures Surgery, West Georgia Medical Center, Kutaisi, Georgia; Graduate Student, New Vision University, Tbilisi, Georgia
[2] Traumatologist orthopedist, West Georgia Medical Center, Kutaisi, Georgia
[3] Clinical Resident, Institute of advanced qualifications and retraining health care staff, Belarusian State Medical University, Minsk, Belarus

***Corresponding author:** igoginava@evex.ge

Received: 18 November 2025
Revised: 15 December 2025
Accepted: 21 December 2025
Published: 30 December 2025

Citation: Irakli Goginava, Sergey Goloborodko, Mariya Riezunenko. An Unconventional Method of the Treatment of Scaphoid Nonunions. Trauma & Ortho Kaz, 2025, 76 (6), jto029. https://doi.org/10.52889/1684-9280-2025-76-6-jto029

Abstract

The aim of this study is to acquaint readers of the journal with the results of using an unconventional operation of the treatment of symptomatic scaphoid nonunion. Resection of the distal fragment in the treatment of symptomatic scaphoid nonunion was performed in 6 patients, all patients were men from 19 to 43 years old (average age 34 years). The operation was performed on the right hand in 4 patients and on the left hand in two patients. In 4 patients 4 to 7 years (average 5 years) had passed since the injury, and in two patients the exact date of injury could not be determined. In 3 cases, the scaphoid nonunion was traced at the level of the distal third and also in 3 cases at the level of the middle third of the bone. Two persons received inadequate conservative treatment immediately after the injury. The main complaint in all patients was severe pain during active-passive extension of the hand and physical load, limitation of passive extension of the hand, and impaired ability to work. Before surgery, all patients had impaired active extension of the hand by an average of 30 degrees and flexion by an average of 10 degrees compared to the contralateral extremity. The results of resection of the distal scaphoid pole were evaluated on average after 3 years (from 12 months to 7 years) in 4 patients. In 3 operated patients the pain at active-passive movements in the wrist joint, at rest and at physical load completely disappeared. One man had moderate pain during passive extension of the hand during physical activity. All 4 men fully recovered their ability to work within minimal time after surgery: 3 men were workers of various specialties; one was a professional Internet game player. In all 4 patients the active-passive extension of the hand increased on average by 15 degrees, the flexion on average remained at the same level – deficit of 10 degrees. There were no clinical manifestations of the wrist instability. All patients were satisfied with the results of treatment. Removal of the distal fragment of the scaphoid in indicated cases is a simple and effective alternative to more complex reconstructive surgery in the treatment of scaphoid pseudoarthrosis. Resection of the distal fragment of the scaphoid does not destabilize the wrist joint and does not lead to a sharp and critical progression of arthritic changes. The indications for resection of the distal fragment of the scaphoid are symptomatic painful scaphoid nonunion with the presence of arthrosis between the styloid process of the radius and the distal fragment of the scaphoid (SNAC 1 and subsequent stages), with impaired passive extension and radial deviation of the hand, with pseudoarthrosis existing for more than 5 years, with unsuccessful bone grafting,

with necrosis of the distal fragment of the scaphoid. A complete rupture of the scapholunate ligament is a contraindication for resection of the distal fragment.

Keywords: scaphoid nonunion, distal pole, scaphoid resection.

1. Introduction

Fractures of the scaphoid bone of the wrist occur in 23-43 cases per 100,000 population annually, and among all fractures of the carpal bones the scaphoid is the most common: 60-80%. Even with adequate and timely conservative treatment, in 10-15% of cases the fractures do not heal [1]. Fractures that remain undiagnosed for a long time, inadequately treated, or are not treated at all significantly increase the above percentages of unsuccessful outcomes. Scaphoid nonunions cause a sharp impairment of hand function and loss of working capacity.

The traditional method of surgical treatment of the scaphoid nonunion is vascularized and nonvascularized bone grafting with fixation of fragments using Kirschner wires, screws, staples, and plates [2,3]. The use of distraction devices and screw synthesis without bone grafting has also been proposed [3,4]. Despite the numerous methods of treating of the scaphoid nonunion, success after bone autografting is observed in 69% of cases [5].

In symptomatic longstanding scaphoid nonunion, osteoarthritis may develop between the distal fragment of the scaphoid and the radius stage 1 of Scaphoid Nonunion Advanced Collapse (SNAC) [6]. In the case of SNAC of the first and subsequent stages, it is highly questionable and illogical to focus efforts on healing the scaphoid nonunion by performing bone grafting, because the manifestations of arthrosis will not go away and will only progress. In such cases, several options are proposed to solve the problem: removal of the styloid process of the radius, removal of the scaphoid in combination with intercarpal arthrodesis, proximal row carpectomy, denervation, total arthrodesis of the wrist [7, 8].

However, the simplest, least traumatic, and most effective solution in this clinical situation appears the resection the distal fragment of the scaphoid [9].

We have not found any reports of such surgery and analysis of its results in the available Russian-language literature.

The aim of this study is to familiarize readers of the journal with the results of using an unconventional operation in the treatment of symptomatic scaphoid nonunion.

2. Materials and methods

Resection of the distal fragment in the treatment of symptomatic scaphoid nonunion was performed in 6 patients at the Kharkov Regional Traumatology Hospital (Kharkov, Ukraine) and at the Medical Center of Western Georgia (Kutaisi, Georgia). All patients were men aged 19 to 43 (average age 34). The operation was performed on the right hand in 4 patients and on the left hand in 2 patients. In 4 patients 4 to 7 years had passed since the injury (average 5 years), and in 2 patients the exact date of the injury could not be determined. In 3 cases, the line of the scaphoid nonunion was visible at the level of the distal third, and in 3 cases at the level of the middle third of the bone. Two people received inadequate conservative treatment immediately after the injury. The main complaint in all patients was severe pain during active-passive extension of the wrist and physical exertion, limitation of passive extension of the wrist, and impaired working capacity. Before surgery, all patients had impaired active extension of the wrist by an average of 30 degrees and flexion by an average of 10 degrees compared to the contralateral extremity. All patients provided written informed consent for the operation. The study was conducted in accordance with the fundamental ethical principles of the Declaration of Helsinki.

Surgical technique

The surgical procedure can be performed under any type of anesthesia, preferably local. Access to the scaphoid is achieved either through a dorsal skin incision or through the palm [8, 10]. If it is not possible to visually detect the gap between the fragments of the scaphoid, it is advisable to identify this gap by puncturing the bone surface with an injection needle, followed by X-ray control. The distal fragment is removed either as a single piece or in separate fragments. If it is not possible to completely remove the distal fragment through the dorsal approach due to the intimate attachment of the ligamentous apparatus to the scaphoid tubercle, then a combined dorsal-palmar approach is quite possible [10]. The joint capsule must be restored. There is no need to perform any interposition procedure to replace the defect that has formed. After the operation, a fixation splint is usually applied for 1-2 weeks.

https://doi.org/10.52889/1684-9280-2025-76-6-jto029

One rather important technical feature should be mentioned. Although biomechanical studies have shown that resection of even 75% of the distal part of the scaphoid does not lead to a loss of the ability to adequately maintain joint congruency of the wrist joint during movement and stress, it is still justified to remove no more than half of the scaphoid [8,11].

3. Results

The results of distal scaphoid resection were evaluated on average after 3 years (from 12 months to 7 years) in 4 patients. In 3 patients who underwent surgery, pain during active-passive movements in the wrist joint, at rest, and during physical activity completely disappeared. One person experienced moderate pain during passive extension of the wrist during physical activity. All 4 men fully regained their ability to work in the shortest possible time after the operation: 3 were workers of various specialties, and one was a professional online gamer. All four patients experienced an average increase of 15 degrees in active-passive extension of the wrist, while flexion remained at the same level on average – a deficit of 10 degrees. No clinical manifestations of the carpal instability were detected. All patients were satisfied with the results of treatment.

Figures 1-3 are the illustrations of the operative treatment of the long-standing (more than 5 years from initial trauma) painful scaphoid nonunion with a significant bone defect in patient aged 43 years. Resection of the distal scaphoid fragment was performed.

A *B*

Figure 1 – X-ray: A) scaphoid nonunion (arrow) of the right hand; B) after resection of the distal fragment of the scaphoid

A *B*

Figure 2 – Active flexion of both hands A) before surgery; B) hands 7 years after surgery

A *B*

Figure 3– Active extension of both hands A) prior to surgery; B) 7 years after surgery

https://doi.org/10.52889/1684-9280-2025-76-6-jto029

The outcome of treatment was assessed 7 years after surgery. The patient is completely satisfied with the outcome of treatment, there is no pain during heavy physical job, working capacity has been fully restored, and active flexion and extension of the hand is no different from that of a healthy extremity.

4. Discussion

Symptomatic scaphoid nonunion leads to a sharp impairment of hand function and loss of working capacity, especially in patients whose profession is associated with heavy manual labor. Many scientific works are devoted to the development of methods of conservative and surgical treatment. However, the outcomes of various treatment methods leave much to be desired. The "gold standard" for the treatment of the scaphoid nonunion is currently open surgery, bone autoplasty with a nonvascularized autograft, and internal fixation with various devices [12].

Indeed, even with the elimination of the nonunion through bone grafting, it is useless to expect regression of arthrosis symptoms. In such cases, depending on the specific situation, various "salvage operations" are performed to improve hand function: partial or total carpal arthrodesis, proximal row carpectomy, joint denervation, resection of the styloid process of the radius.

Another unusual way to solve the problem may be a simple, minimally invasive, effective operation: resection of the distal fragment of the scaphoid. In this case, the contact between the arthrosis-altered joint surfaces of the radius and scaphoid bones is "eliminated." This alternative approach to the treatment of symptomatic scaphoid nonunion was proposed in 1951 by Downing FH, although along with the removal of the distal fragment of the scaphoid, the styloid process of the radius was also resected [14].

Unfortunately, this treatment method has not become widely used. In 1998, Ruch DS and co-authors successfully repeated the above-described operation in three patients with scaphoid nonunion and avascular necrosis of the proximal fragment, using an arthroscopic method [15]. The operation experienced a "rebirth" in 1999, when Malerich M. and co-authors shared the results of treatment in 19 patients with scaphoid nonunion who underwent resection of the distal fragment of the scaphoid between 1987 and 1996 [9].

The indications for resection of the distal fragment of the scaphoid are symptomatic painful scaphoid nonunions with the presence of arthrosis between the styloid process of the radius and the distal fragment of the scaphoid (SNAC stage 1), with impaired passive extension and radial deviation of the hand [9]. This operation is also indicated for nonunions that have existed for more than 5 years, unsuccessful bone grafting of a nonunion, necrosis of the distal fragment of the scaphoid, etc. [7,16,17]. A complete rupture of the scapholunate ligament is a contraindication for resection of the distal fragment [16].

However, this treatment strategy is contraindicated in patients with clinical and radiographic signs of arthrosis between the articular surfaces of the radius and the distal fragment of the scaphoid, resulting from incongruity, i.e., the first and, even more so, subsequent stages of SNAC [13].

The long-term results of treatment were most comprehensively evaluated by Malerich M. et al. [9]. On average, 15 years (from 10 to 25 years) after resection of the distal fragment of the scaphoid, positive results were obtained in 17 out of 19 cases in terms of the disappearance or reduction of pain during exercise, a significant increase in flexion-extension, radial deviation of the hand, and a significant increase in hand strength. One patient with an unsatisfactory result prior to removal of the distal fragment of the scaphoid already had subluxation with arthrosis in the midcarpal joint, and the second patient had avascular necrosis of the proximal fragment of the scaphoid and signs of rupture of the scapholunate ligament before the operation. The authors also noted that all patients had signs of dorsal intercalated segment instability before surgery, and 8 of 19 patients had degenerative changes in the radioulnar, lunate-capitate, and proximal scaphoid-capitate joints [10]. On average, 15 years after surgery, these patients had a slight increase in the radioulnar angle (from 29 to 33 degrees on average), 12 out of 18 patients had midcarpal arthrosis on X-rays, and 4 of them did not have this arthrosis before the operation (20 years ago). It should be noted that the developed midcarpal arthrosis was asymptomatic, which is confirmed by data from other authors [16, 18].

None of the patients developed osteoarthritis in the proximal radioscaphoid and radiolunate joints in the long term [9].

These data refute the notion that resection of the distal fragment of the scaphoid seriously destabilizes the wrist joint and leads to a sharp and critical progression of arthritic changes.

Thus, it has been confirmed that removal of the distal fragment of the scaphoid leads to an increase in the range of motion in the wrist joint, an increase in the

strength characteristics of the hand, a reduction or disappearance of pain, and early restoration of working capacity. Most importantly, this method is the least complex and invasive compared to other methods used in similar situations: arthrodesis, proximal row carpectomy, etc., which, by the way, can be associated with various complications, such as nonunion and infection when attempting to perform four-corner arthrodesis, stiffness worse than after resection of the distal fragment of the scaphoid, and poor functional results.

If the above-mentioned complex operations failure, the only option may be total arthrodesis of the wrist joint, while if the result is negative after resection of the distal fragment, the same four-corner arthrodesis or proximal row carpectomy can be performed, i.e., to preserve painless movements in the wrist joint [19].

The results of our operations also confirm that resection of the distal fragment of the scaphoid in the treatment of symptomatic nonunion of the scaphoid is a minimally invasive, technically simple, effective, and well-thought-out operation that quickly solves the problem of restoring the patient's ability to work. No complications were identified either during or after the operation. Both subjectively and objectively, this alternative treatment, which differs from the generally accepted one, led to positive results in all four patients, and these results have remained stable over a long period of observation: up to seven years in the group we treated. None of the patients required other types of surgical treatment. It should be noted that periodic X-ray monitoring is not necessary, since if there are no clinical signs of arthrosis of the wrist joint, then radiographic signs of arthrosis or instability do not affect the solution of clinical problems.

5. Conclusions

Removal of the distal fragment of the scaphoid in indicated cases is a simple and effective alternative to more complex reconstructive surgery in the treatment of scaphoid pseudoarthrosis. Resection of the distal fragment of the scaphoid does not destabilize the wrist joint and does not lead to a sharp and critical progression of arthritic changes.

The indications for resection of the distal fragment of the scaphoid are symptomatic painful scaphoid nonunion with the presence of arthrosis between the styloid process of the radius and the distal fragment of the scaphoid (SNAC 1 and subsequent stages), with impaired passive extension and radial deviation of the hand, with pseudoartthrosis existing for more than 5 years, with unsuccessful bone grafting, with necrosis of the distal fragment of the scaphoid.

A complete rupture of the scapholunate ligament is a contraindication for resection of the distal fragment.

The patient gave written consent for the publication of the report and the posting of information on the Internet about the nature of his illness, the treatment he received, and its results for scientific and educational purposes.

Conflict of interest. The authors of the work declare that there is no conflict of interest.

Funding. This study did not receive external funding.

Authors contributions: Conceptualization – I.G.; methodology – S.G.; verification – M.R.; formal analysis – M.R.; writing (original draft preparation) – I.G.; writing (review and editing) – I.G., S.G.

References

1. Rinaldi, A., Pilla, F., Chiaramonte, I., Pederiva, D., Vita, F., Schilardi, F., Gennaro, A., & Faldini, C. (2024). Arthroscopic surgery for scaphoid nonunion: a 10-year systematic literature review. Musculoskeletal surgery, 108(2), 125–132. https://doi.org/10.1007/s12306-023-00805-x

2. Golubev, I.O., Yulov, R.V. (2015). Evolyuciya kostnoj autoplastiki v lechenii lozhnyh sustavov lad'evidnoj kosti zapyast'ya (obzor literatury) (Evolution of bone autografting in the treatment of scaphoid carpal pseudoarthrosis (literature review)) [in Russian]. Voprosy rekonstruktivnoj i plasticheskoj hirurgii, 1(52), 12-22. https://journals.tsu.ru/uploads/import/1220/files/__1__2015_14.pdf_

3. Gray, R. R. L., Halpern, A. L., King, S. R., & Anderson, J. E. (2023). Scaphoid fracture and nonunion: new directions. The Journal of hand surgery, European volume, 48(2_suppl), 4S–10S. https://doi.org/10.1177/17531934231165419

4. Magdiev, D.A., Kuz'menko, V.V., Korshunov, V.F. (1998). Lechenie nesrosshihsya perelomov i lozhnyh sustavov lad'evidnoj kosti metodom distrakcii (Treatment of non-union fractures and pseudoarthroses of the scaphoid bone using distraction) [in Russian]. Vestnik travmatologii i ortopedii im. N.N.Priorova, 2, 11-15. https://doi.org/10.17816/vto104481

5. Ammori, M. B., Elvey, M., Mahmoud, S. S., Nicholls, A. J., Robinson, S., Rowan, C., Spence, S., Wade, R. G., Karantana, A., British Society for Surgery of the Hand Scaphoid Nonunion Group, & Davis, T. R. C. (2019). The outcome

of bone graft surgery for nonunion of fractures of the scaphoid. The Journal of hand surgery, European volume, 44(7), 676–684. https://doi.org/10.1177/1753193419841278

6. Penteado, F.T., Dos Santos, J.B.G., Caporrino, F.A., de Moraes, V.Y., Belloti, J.C., Faloppa, F. (2012). Scaphoid nonunion advanced collapse classifications: a reliability study. Journal of Hand and Microsurgery, 4(1), 12–15. https://doi.org/10.1007/s12593-012-0062-2

7. Borges, C.S., Ruschel, P.H., Pignataro, M.B. (2020). Scaphoid reconstruction. Orthopedic Clinics of North America, 51, 65–76. https://doi.org/10.1016/j.ocl.2019.08.010

8. Shah, C.M., Stern, P.J. (2013). Scapholunate advanced collapse (SLAC) and scaphoid nonunion advanced collapse (SNAC) wrist arthritis. Current Reviews Musculoskeletal Medicine, 6, 9–17. https://doi.org/10.1007/s12178-012-9149-4

9. Malerich, M.M., Catalano, L.W. III., Weidner, Z.D., Vance, M.C., Eden, C.M., Eaton, R.G. (2014). Distal scaphoid resection for degenerative arthritis secondary to scaphoid nonunion: a 20-year experience. The Journal of Hand Surgery, 39A(9), 1669-1676. https://doi.org/10.1016/j.jhsa.2014.05.031

11. Kachooei, A. R., Hioe, S. D., Jimenez, M. L., Jones, C. M., & Rivlin, M. (2022). The Effects of Distal Pole Scaphoid Resection on Wrist Biomechanics. The archives of bone and joint surgery, 10(1), 92–97. https://doi.org/10.22038/ABJS.2021.55049.2738

12. Noori, A., Persitz, J., Khan, S., Chan, A., Paul, R. (2024). Arthroscopic assisted versus open non-vascularized bone grafting in delayed union and nonunion of the scaphoid: a systematic review and meta-analysis. BMC Musculoskeletal Disorders, 25, 611, 1-9. https://doi.org/10.1186/s12891-024-07723-4

13. Steinmann, S.P., Adams, J.E. (2006). Scaphoid fractures and nonunions: diagnosis and treatment. Journal of Orthopaedic Science, 11, 424–431. https://doi.org/10.1007/s00776-006-1025-x

14. Strauch, R.J. (2011). Strauch R. J. (2011). Scapholunate advanced collapse and scaphoid nonunion advanced collapse arthritis--update on evaluation and treatment. The Journal of hand surgery, 36(4), 729–735. https://doi.org/10.1016/j.jhsa.2011.01.018

15. Ruch, D. S., Chang, D. S., & Poehling, G. G. (1998). The arthroscopic treatment of avascular necrosis of the proximal pole following scaphoid nonunion. Arthroscopy: the journal of arthroscopic & related surgery : official publication of the Arthroscopy Association of North America and the International Arthroscopy Association, 14(7), 747–752. https://doi.org/10.1016/s0749-8063(98)70103-3

16. Ruch, D. S., & Papadonikolakis, A. (2006). Resection of the scaphoid distal pole for symptomatic scaphoid nonunion after failed previous surgical treatment. The Journal of hand surgery, 31(4), 588–593. https://doi.org/10.1016/j.jhsa.2005.12.027

17. Youssef, A. O., & Abdel-Fattah, A. S. (2017). Distal scaphoid resection arthroplasty for treatment of avascular necrosis of the distal pole secondary to scaphoid nonunion. Journal of Hand Surgery (European Volume), 42(7), 748-750. https://doi.org/10.1177/1753193416680498

18. Soejima, O., Iida, H., Hanamura, T., & Naito, M. (2003). Resection of the distal pole of the scaphoid for scaphoid nonunion with radioscaphoid and intercarpal arthritis. The Journal of hand surgery, 28(4), 591–596. https://doi.org/10.1016/s0363-5023(03)00181-3

19. Mayfield, C. K., Gould, D. J., Dusch, M., & Mostofi, A. (2019). Distal scaphoid excision in treatment of symptomatic scaphoid nonunion: systematic review and meta-analysis. Hand, 14(4), 508-515. https://doi.org/10.1177/1558944718760002

Қайықтәрізді сүйегінің жалған буындарын емдеудің дәстүрлі емес әдісі

Гогинава И.Б. [1], Голобородько С.А. [2], Резуненко М.В. [3]

[1] Жамбас сынықтары хирургиясы бөлімішесінің меңгерушісі, Грузияның батыс медициналық орталығы, Кутаиси, Грузия; Аспирант, New Vision University, Тбилиси, Грузия

[2] Ортопед-травматолог, Батыс Грузия медициналық орталығы, Кутаиси, Грузия

[3] Клиникалық ординаторы, Беларусь мемлекеттік медицина университеті, Минск, Беларусь

Түйіндеме

Зерттеудің мақсаты – оқырмандарын қайықтәрізді сүйегінің симптоматикалық жалған буындарын емдеу кезінде дәстүрден тыс операцияның нәтижелерімен таныстыру. Қайық тәрізді сүйектің симптоматикалық жалған буынын емдеу кезінде дистальды бөлшекті алып тастау 6 науқасқа жасалды, олардың

барлығы – 19–43 жас аралығындағы (орташа 34 жас) ер адамдар болды. Ота 4 науқаста оң, 2 науқаста сол қолда орындалды. Төрт науқаста жарақаттан кейін 4–7 жыл (орташа 5 жыл) өткен, ал екі науқаста жарақаттың нақты уақыты анықталмады. 3 жағдайда қайықтәріздес сүйектің жалған буынының сызығы дистальды үштен бірінің деңгейінде, сондай-ақ 3 жағдайда – сүйектің орташа үштен бірінің деңгейінде байқалды. Екі адам жарақаттан кейін бірден жеткіліксіз консервативті ем алған. Барлық науқастардың негізгі шағымы қолдың белсенді-пассивті жазылуы және дене белсенділігі кезінде айқын ауырсыну, қолдың пассивті жазылуын шектеу, еңбек ету қабілетінің төмендеуі болды. Отаға дейін барлық науқаста қолдың белсенді жазылуы контралатералды қолмен салыстырғанда орташа 30°, ал бүгілуі шамамен 10°-қа төмен болды. Қайықтәрізді сүйектің дистальді бөлшегін резекциялау нәтижелері орта есеппен 3 жылдан кейін (12 айдан 7 жасқа дейін) 4 науқаста бағаланды. Ота жасалған 3 адамның білек буынындағы белсенді-пассивті қозғалыстар кезінде, тыныштықта және дене белсенділігі кезінде ауырсыну толық жойылды. Бір адамда дене белсенділігі кезінде білезікті пассивті түрде созу кезінде орташа ауырсынуды байқалды. Барлық 4 ер адам отадан кейін қысқа мерзімде еңбекке толық қабілеттілігін қалпына келтірді: олардың үшеуі – түрлі мамандықтағы жұмысшылар, біреуі - интернет-ойындардың кәсіби ойыншысы болды. Барлық 4 науқастың білезіктің белсенді-пассивті жазылуы орта есеппен 15 градусқа артты, бүгілуі орташа есеппен сол деңгейде қалды – 10 градус тапшылық. Білезік буынының тұрақсыздығының клиникалық белгілері анықталған жоқ. Барлық науқастар емдеу нәтижелеріне қанағаттанды. Қайықтәрізді сүйегінің дистальды бөлшегін алып тастау көрсетілген жағдайларда жалған буынды емдеуге арналған күрделі реконструктивті оталарға тиімді әрі қарапайым балама болып табылады. Қайықтәрізді сүйектің дистальды бөлшегін резекциялау білезік буынының тұрақтылығын төмендетпейді және артроздық өзгерістердің күрт үдеуіне әкелмейді. Қайықтәрізді сүйектің дистальды бөлшегін резекциялауға көрсеткіштер — қайықтәрізді сүйектің симптоматикалық ауырсынумен жүретін жалған буындары, сондай-ақ шынтақ тәрізді сүйектің өсіндісі мен қайықтәрізді сүйектің дистальды фрагменті арасындағы артроздың болуы (SNAC 1 және кейінгі сатылары), білезіктің пассивті жазылуы мен радиалды девиациясының бұзылуы, 5 жылдан астам уақыт бойы сақталған жалған буындар, сәтсіз сүйек пластикасынан кейінгі жағдайлар, қайықтәрізді сүйектің дистальды бөлшегінің некрозы. Дистальды бөлшекті резекциялау үшін қарсы көрсеткіш қайықтәрізді–жартыай тәрізді байламының толық жыртылуы болып табылады.

Түйін сөздер: қайықтәрізді сүйегінің жалған буыны, дистальды бөлшек, қайықтәрізді сүйектің резекциясы.

Нетрадиционный способ лечения ложных суставов ладьевидной кости запястья

Гогинава И.Б. [1], Голобородько С.А. [2], Резуненко М.В. [3]

[1] Заведующий отделением хирургии переломов таза, Медицинский центр западной Грузии, Кутаиси, Грузия; Аспирант, New Vision University, Тбилиси, Грузия

[2] Ортопед-травматолог, Медицинский центр западной Грузии, Кутаиси, Грузия

[3] Клинический ординатор кафедры травматологии и ортопедии, Белорусский государственный медицинский университет, Минск, Беларусь

Резюме

Целью данной работы является ознакомление читателей с результатами использования нетрадиционного оперативного вмешательства при лечении симптоматических ложных суставов ладьевидной кости запястья. Удаление дистального отломка при лечении симптоматического ложного сустава ладьевидной кости выполнено у 6 пациентов, все пациенты были мужчинами от 19 до 43 лет (в среднем 34 года). На правой кисти операция выполнена у 4 пациентов и на левой – у двух. У 4-х пациентов с момента травмы прошло от 4-х до 7 лет (в среднем 5 лет), у двоих точной даты травмы выяснить не удалось. В 3-х случаях линия ложного сустава ладьевидной кости прослеживалась на уровне дистальной трети и также в 3-х случаях – на уровне средней трети кости. Два человека непосредственно после травмы получали неадекватное консервативное лечение. Основной жалобой у всех пациентов являлась выраженная боль при активно-пассивном разгибании кисти и физической нагрузке, ограничение пассивного разгибания кисти, нарушение трудоспособности. До операции у всех пациентов было нарушено активное разгибание кисти в среднем на 30° и сгибание в среднем на 10° по сравнению с контралатеральной конечностью. Результаты резекции дистального отломка ладьевидной кости

оценены в среднем через 3 года (от 12 месяцев до 7 лет) у 4 пациентов. У 3-х прооперированных полностью исчезли боли при активно-пассивных движениях в лучезапястном суставе, в покое и при физической нагрузке. У одного человека наблюдались умеренные боли при пассивном разгибании кисти во время физической нагрузки. Все 4 мужчины полностью восстановили свою трудоспособность в минимальные сроки после операции: 3 человека являлись рабочими различных специальностей, один - профессиональным игроком в интернет-игры.

У всех 4 пациентов в среднем на 15 градусов увеличилось активно-пассивное разгибание кисти, сгибание в среднем осталось на том же уровне – дефицит 10 градусов. Клинических проявлений нестабильности кистевого сустава выявлено не было. Все пациенты были удовлетворены результатами лечения. Удаление дистального отломка ладьевидной кости запястья в показанных случаях является простой и эффективной альтернативой более сложным реконструктивным операциям при лечении ложного сустава ладьевидной кости запястья. Резекция дистального отломка ладьевидной кости не дестабилизирует кистевой сустав и не ведет к резкому и критическому прогрессированию артрозных изменений. Показаниями к выполнению резекции дистального отломка ладьевидной кости являются симптоматические болезненные ложные суставы ладьевидной кости с наличием артроза между шиловидным отростком лучевой кости и дистальным отломком ладьевидной (SNAC 1 и последующих стадий), с нарушением пассивного разгибания и радиальной девиации кисти, при ложных суставах, существующих больше 5 лет, при неудачной костной пластике, при некрозе дистального отломка ладьевидной кости. Противопоказанием для резекции дистального отломка является полный разрыв ладьевидно-полулунной связки.

Ключевые слова: ложный сустав ладьевидной кости запястья, дистальный отломок, резекция ладьевидной кости.