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TOTAL HIP ENDOPROSTHETICS BY ACETABULAR BONE PLASTY FOR IN DYSPLASTIC COXARTHROSIS USING COMBINED SPINAL-EPIDURAL ANESTHESIA

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Purpose of the study. The aim of the study was to analyze the results of total hip arthroplasty using bone autoplasty of the acetabular floor in patients with dysplastic coxarthrosis.

Material and method of research.

To assess the effectiveness of impact bone autoplasty of the acetabular floor in total hip arthroplasty, a retrospective analysis of the course of the disease in 18 patients with dysplastic coxarthrosis was performed in the period from 2019 to 2022. The average age of the patients was 38.2 ± 3.62 years. The distribution of patients by sex was 13 women/5 men or 72.22%/27.77%. All 18 patients (100%) are people of working age, of which 60% (12 patients) are disabled of the 3rd group.

All 18 patients underwent cementless total hip arthroplasty using “ press - fit ” acetabular fixation components and “metal polyethylene” friction pair, supplemented with bone grafting of the acetabular floor with an autograft formed from the bone of the acetabular floor.

Surgical technique. In order to minimize side effects from the side of central hemodynamics, we used combined spinal-epidural anesthesia for anesthesia protection . This technique allows adequate postoperative pain relief without the use of narcotic analgesics, since in the postoperative period there is the possibility of introducing local anesthetics through the epidural catheter. This, in turn, enables early verticalization of the patient, preventing such formidable complications as congestive pneumonia and thromboembolism. Also, 2 g of cefuroxime was administered intravenously 30-60 minutes before surgery for the purpose of perioperative prevention of surgical infection. In case of allergy to cephalosporins, 600 mg of clindamycin was administered.

All patients routinely underwent prevention of thrombotic complications in the perioperative period using low molecular weight heparins (fraxiparin 0.3 ml (2850 anti-Xa IU) twice a day or clexane 0.4 ml (4000 anti-Xa IU) 2 times a day) according to the protocol adopted in our clinic. Patients operated on the knee joints without a tourniquet

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were injected intravenously with 1 g of tranexamic acid 5-10 minutes before the operation, and 1 g of tranexamic acid was administered intravenously 5-10 minutes before its removal in order to hemostasis and reduce the operating room for patients who had a tourniquet applied. blood loss. The blood-saving effect of tranexamic acid, according to a number of authors, varies from 25 to 50% during operations of endoprosthesis replacement of the joints of the lower limb [150; pp. 391-9, 110; pp. 965-974, 211].

In the position of the patient on a healthy side after three times processing of the surgical field, a lateral access to the hip joint was made according to Harding. Dissection of the skin, subcutaneous fat and fascia lata of the thigh was carried out according to the classical method. Produced longitudinal dissection of the joint capsule and dislocation of the femoral head.

After the bottom of the acetabulum was exposed, a “trapezoid” osteotomy of the bottom of the acetabulum was made with a pointed grooved chisel and the graft was pushed into the socket until it stops. After making sure that the graft was tightly wedged into the acetabular cavity, then with the help of cutters a cavity of the required size was formed.

Results. Evaluation of the effectiveness of surgical treatment began with a clinical examination of patients, which included examination of the postoperative zone, measurement of the absolute and relative length of the limbs, determination of the range of motion in the hip joint using a goniometer were not found in any of the patients.

Table 1. Range of motion in the operated hip joint

	before total arthroplasty	after total arthroplasty
bending	57.5 ± 16.58*	109 ± 9.9*
Extension	2.7 ± 2.06*	8.7 ± 4.22*
Casting	2.7 ± 3.07*	9.8 ± 4.5*
lead	11.4 ± 6.89*	22±6*
Outdoor rotation	10.4 ± 6.57*	24.4 ± 5.8*
Internal rotation	22 ± 6.36	23.6 ± 4.39

Analysis of the results showed a decrease in the indicator depending on the rehabilitation period, which indicated a decrease in the severity of pain in patients after total arthroplasty. At the same time, a significant jump was noted in the first 3 months, which is most likely due to the additional intake of analgesics against the background of

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restoration of the anatomical center of rotation and balancing of muscle forces during the intervention. According to postoperative radiographs, in all patients, the acetabular component was pressed into the true acetabulum (100%). The average bone coverage of the endoprosthesis cup was 94.8 ± 3.79%, the lateral inclination angle was 43.5 ± 5.77°.

Conclusions:

1. The use of bone autograft from the bottom of the acetabulum of the hip joint in patients with Hartofilakidis type 1-2 dysplastic coxarthrosis, as well as third and fourth degree dysplastic coxarthrosis, is an effective way to ensure complete coverage of the acetabular component, which improves the results of surgical treatment and reduces the incidence of aseptic instability of the endoprosthesis cup.

2. **Combined spinal-epidural anesthesia** is the method of choice for lower limb joint arthroplasty, as it provides adequate pain relief in the perioperative period without the use of narcotic analgesics, creates the necessary physiological conditions for early recovery and maintenance of blood flow after surgery.

References

1) *Мамытов М.М.* Дифференцированный подход в хирургическом лечении геморрагического инсульта / М.М. Мамытов, К.Б. Ырысов, Б.Ж. Турганбаев // Российский нейрохирургический журнал им. А.Л. Поленова. 2013 (сборник статей). Т V С. 48-51.
2) *Brouwers H.B., Chang Y., Falcone G.J.* Predicting Hematoma Expansion After Primary Intracerebral Hemorrhage // JAMA Neurol. 2014 Feb; 71 (2): 158-164.
3) *Верещагин Н.В.* Сосудистые заболевания головного мозга: Эпидемиология. Основы профилактики / Н.В. Верещагин, З.А. Суслина, Ю.Я. Варакин. М.: Медпресс, 2006. 256 с.
4) *Варакин Ю.Я.* Эпидемиология сосудистых заболеваний головного мозга и операций / Ю.Я. Варакин // Очерки ангионеврологии. М., 2005. С. 66-82.
5) *Белимготов Б.* Хирургия острого периода гипертензивных внутримозговых гематом / Б. Бе- лимготов, А. Чочаева, З. Кожаев, А. Аттаева // Материалы IV съезда нейрохирургов России. М., 2006. С. 248-249.
6) *Брицис Р.* Результаты хирургического лечения больных со спонтанной интрацеребральной гематомой / Р. Брицис, К. Ауслandс, М. Букс // Материалы IV съезда нейрохирургов России. М., 2006. С. 251-252.
7) *Sembill J.A., Kuramatsu J.B., Gerner S.T.* Hematoma enlargement characteristics in deep versus lobar intracerebral hemorrhage // Ann Clin Transl Neurol. 2020 Mar; 7 (3): 363-374. DOI:10.1002/acn3.51001.