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DISTINCTIVE FEATURES OF DETERMINING THE RELATIONSHIP BETWEEN THE WALL OF BLOOD VESSELS IN JOINT TISSUES AND DEGENERATIVE CHANGES IN FIBROUS STRUCTURES

Abstract: this article discusses anatomical and functional changes in the inguinal-femoral joint, leading to the progression of osteoarthritis, which develops on the basis of dysplasia. One of the main aspects of this process is morphological changes in the blood supply (angioarchitectonics) of synovial tissue, subchondral bone and chondral zones, as well as changes in articular tissue as a result of trophic disorders, hypoxia and disproportionate development of angiogenesis.

Keywords. anatomical and functional changes in the inguinal joint, dysplasia of synovial tissue, subchondral bone and chondral zones.

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БЎҒИМ ТЎҚИМАЛАРИДАГИ ҚОН ТОМИРЛАР ДЕВОРИ ВА ТОЛАЛИ ТУЗИЛМАЛАРДАГИ ДЕГЕНЕРАТИВ ЎЗГАРИШЛАР ЎРТАСИДАГИ БОҒЛИҚЛИКНИ АНИҚЛАШНИНГ ЎЗИГА ХОС ХУСУСИЯТЛАРИ

Аннотация, ушбу мақолада чаноқ-сон бўғимидаги анатомик ва функционал ўзгаришлар дисплазия заминида ривожланган остеоартрознинг прогрессиясига олиб келади. Бу жараёнда асосий аҳамиятга эга бўлган жиҳатлардан бири - синовиал тўқима, субхондрал суяк ва хондрал зоналарнинг қон таъминотидаги (ангиоархитектоникадаги) морфологик ўзгаришлари ҳамда ўзгаришлар бўғим тўқималарида трофик бузилишлар, гипоксия ва ангиогенезнинг номутаносиб ривожланиши орқали деградация жараёнлари ҳақида маълумотлар келтирилган.

Калит сўзлар. чаноқ-сон бўғимидаги анатомик ва функционал ўзгаришлари, дисплазия, синовиал тўқима, субхондрал суяк ва хондрал зоналар.

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ОТЛИЧИТЕЛЬНЫЕ ОСОБЕННОСТИ ОПРЕДЕЛЕНИЯ СВЯЗИ МЕЖДУ СТЕНКОЙ КРОВЕНОСНЫХ СОСУДОВ В ТКАНЯХ СУСТАВА И ДЕГЕНЕРАТИВНЫМИ ИЗМЕНЕНИЯМИ В ФИБРОЗНЫХ СТРУКТУРАХ

Аннотация, в данной статье рассматриваются анатомические и функциональные изменения в пахово-бедренном суставе, приводящие к прогрессированию остеоартроза, который развивается на почве дисплазии. Одним из основных аспектов этого процесса являются морфологические изменения в кровоснабжении (ангиоархитектонике) синовиальной ткани, субхондральной кости и хондральных зонах, а также изменения в суставной ткани в результате трофических нарушений, гипоксии и непропорционального развития ангиогенеза.

Ключевые слова. анатомические и функциональные изменения в паховом суставе, дисплазия синовиальной ткани, субхондральной кости и хондральных зон.

Relevance. Currently, hip arthroplasty occupies one of the leading positions in a number of volumetric operations. This is due to the high frequency of destructive and dystrophic lesions of large joints, which occupy the second place in disability after pathology of the cardiovascular system. Arthroplasty provides a significant improvement in the quality of life of patients with decompensated TBS lesions due to pain reduction and improved functional condition. B.Sh. Minasov and co-authors attributed arthroplasty to the most accurate and intelligent section of orthopedics. The effectiveness of surgical treatment of patients with destructive dystrophic lesions of TBS can be assessed by numerous meta-analyses, systematic reviews and registers in which a large number of patients have been studied, which determines the reliability of these works. According to these publications, hip arthroplasty treatment is always accompanied by a certain proportion of complications and unsatisfactory outcomes. In 33-40% of cases, revision arthroplasty was not associated with obvious defects in the implant placement.

This may be due to the lack of a systematic assessment of the individual's condition and insufficient attention to the patient's perioperative management. Knowledge of these aspects provides a pathogenetic approach and can help improve treatment outcomes. It should be recognized that the key problems of arthroplasty today are solving the tasks of increasing the survival rate of hip arthroplasty, the service life and performance of which are limited and associated with a number of inevitable complications. The overall complication rate after TBS arthroplasty ranges from 7.0 to 26.3%. One of the objective indicators characterizing the level of complications is considered to be the proportion of revision arthroplasty, which, according to various publications, ranges from 1.1 to 21.6%. Most often, the need for revision arises due to aseptic instability of the implant (36.2–75.4%), infectious complications (29.3-49.1%) and recurrent dislocation of the endoprosthesis. In this regard, the term endoprosthesis survival has appeared, which characterizes the duration of the implant's functioning until its replacement. A large number of different developments have been proposed for revision hip arthroplasty, optimizing the technique, however, the results of revision arthroplasty are significantly inferior to the results of primary joint replacement[1.3.5.7.9.11.13.15].

The factors influencing the results of hip arthroplasty can be divided into modifiable (modifiable) and unmodifiable (unchangeable). The unmodifiable ones include the patient's gender and diagnosis. Modifiable factors include the patient's age, body mass index, surgical technique, implant model, rehabilitation technique, preoperative preparation, drug therapy, etc. Various treatment optimization methods have been proposed to improve the results of TBS arthroplasty. They can be divided into several groups: improving patient preparation for surgery, preoperative design of TBS arthroplasty, surgical intervention techniques, evaluation of the effectiveness of using implants depending on the technology of endoprosthesis and friction pairs, the use of various drug therapy regimens and rehabilitation measures. However, as numerous studies have shown, the use of these methods did not always lead to improved treatment results in the long term after hip arthroplasty. An analysis of the publications allowed us to determine the effectiveness of the proposed methods for improving the results of TBS arthroplasty. When studying the literature data, preference was given to modern meta-analyses, systematic reviews and works based on qualitative clinical studies, which ensured an objective assessment of the proposed methods. Hip arthroplasty begins with the preoperative preparation of patients for surgery. Publications that have studied the effectiveness of the effect of preoperative preparation on the results of TBS arthroplasty prove that the use of this technique before arthroplasty with a preliminary assessment and influence on possible risk factors for complications can improve treatment outcomes and reduce the frequency of adverse outcomes [2.4.6.8.10.12.14.16].

In particular, one study before surgery compared muscle strength and functional status according to the Hip Osteoarthritis Outcome Score in patients who had previously undergone physical therapy for 10 weeks, and in individuals who were preparing for surgery without this set of exercises. There was a significant improvement in the functional state by 10 points and an increase in muscle strength in patients who had physical therapy before surgery.

The purpose of the study. methods of studying the peculiarities of determining the connection between the wall of blood vessels in the tissues of the joint and degenerative changes in fibrous structures. Object of study.

The results of the examination from 276 patients who received treatment for dysplastic Coxoarthrosis in the clinics of the Bukhara region are scientifically evaluated. The subject of the study. The compatibility of dysplastic coxoarthrosis in various forms of weight is quantitatively studied in clinical, morphological, morphometric, immunogystochemical, beam anatomical methods. Also identified morphofunctional changes have been compared. Results and analyzes. New information has been presented to better understand diagnosis and pathogenesis. The results of this study showed that dysplastic coxoarthrosis involves not only mechanical and morphological but also pathogenetic mechanisms associated with structural and functional changes in blood supply and microcirculation. This information further complements the modern theory of osteoarthritis, laying the groundwork for new scientific approaches. The relationship of angiogenesis and hypoxia markers (VEGF, CD34, HIF-1 α) with the stages of dysplastic Coxoarthrosis is scientifically substantiated. The role of these biomarkers in pathomorphological processes was first analyzed at the microscopic and immunogystochemical levels, allowing them to be used in early diagnosis, prognosis and treatment. New approaches to the pathogenetic treatment of dysplastic coxoarthrosis are scientifically

substantiated. During the study, the possibilities of pharmacologically correcting disorders in angioarchitectonics were studied. This condition serves as a scientific basis for the development of effective treatments in the future treatment of dysplastic osteoarthritis that affect pathogenesis, and not just symptomatic.

Individualized therapy based on morphological stages is provided. Depending on the extent and nature of angioarchitectonic changes, patient-targeted treatment tactics can be developed. This corresponds to the concept of individualized and step-by-step therapy. Modern scientific approaches aimed at delaying disability and improving the quality of life in patients are based. This study reveals the possibilities of preventing disease progression from the beginning, without going as far as radical surgical techniques such as endoprotezing, which are needed in the late stages of dysplastic coxoarthrosis. The central position of angioarchitectonic changes in the pathogenesis of dysplastic coxoarthrosis is morphologically proven. The remodeling of the microcirculation system in the synovial curtain, subchondral bone and chondral tissue, impaired vascularization in the architectonics of the capillaries, microspasms and capillary narrowing are evaluated. Specific morphological characters regarding the dysregularized state of angiogenesis were first described in detail. Immunogystochemical analysis results in correlations of VEGF (the factor responsible for vasculization), CD34 (endothelial indicator), and HIF-1 α (hypoxia-associated transcriptional factor) expression with respect to dysplastic Coxoarthrosis levels. It has been shown that consistently high expression of markers is one of the factors in which hypoxia and pathological angiogenesis are consistently observed and affect disease progression. The nature of the gradual development of morphological changes is determined. It has been shown that angioarchitectonic changes in Grade I, II and III dysplastic Coxoarthrosis samples are quantitatively and qualitatively different, which can be applied as a new diagnostic criterion in differentiating progression stages of pathology. The possibility of pharmacological correction of angioarchitectonics changes pathogenetically directed is scientifically substantiated.

Conclusion. Angioprotectors (e.g., trental, Detralex), antitipoxants (mexidol, actovegin), and antiangiogenic substances were used to analyze the dynamics of changes in the expression of angiogenesis markers. This opens up possibilities for treating dysplastic coxoarthrosis from a pathogenetic point of view rather than simply symptomatic. Such an approach provides a scientific basis for the formation of individualized therapeutic strategies in orthopedics, providing the possibility of early-stage detection and targeted treatment of dysplastic coxoarthrosis.

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