

## DEVELOPMENT OF RECONSTRUCTIVE-SANITIZING SURGICAL INTERVENTIONS IN CHRONIC PURULENT OTITIS

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### ABSTRACT

The article presents the results of a study on the development of reconstructive-sanitizing surgical procedures in patients with chronic purulent otitis media. The historical aspect of the formation of middle ear surgery, the formation of views on the choice of surgical techniques, taking into account the development mainly towards sparing and hearing-preserving techniques that allow achieving the highest results in functional terms, is considered. The dynamics of the incidence of chronic purulent otitis media in the Samarkand region and on average in Uzbekistan were compared. The analysis of changes in the structure of surgical interventions for chronic purulent otitis media, the dynamics of changes in surgical activity of otorhinolaryngological hospitals in Samarkand. An assessment of the ratio of both sanitizing and reconstructive plastic interventions carried out separately in several stages and simultaneous reconstructive-sanitizing operations over the years is presented, a decrease in the proportion of radical sanitizing techniques with the simultaneous development of reconstructive otosurgery and an increase in the number of plastic and reconstructive interventions is noted.

**Keywords:** chronic purulent otitis media, temporal bone, reconstructive-sanitizing middle ear surgery, middle ear surgery.

**Introduction.** In modern otorhinolaryngology, there are many modifications of reconstructive-sanitizing interventions on the middle ear in chronic purulent otitis media (HCSO) [1]. As a rule, they perform two main tasks: the rehabilitation of a purulent focus and the restoration of the structures of the middle ear in order to improve auditory function – and can be performed both simultaneously and separately in stages [2, 3]. Earlier in time

of occurrence are sanitizing techniques aimed at removing all pathologically altered tissues in the focus of inflammation, as a rule, they are accompanied by mastoidectomy and the formation of a residual cavity [4]. Subsequently, with the development of otosurgery, there are more and more reconstructive interventions, including those performed in conjunction with the sanitizing stage, which allows to achieve the restoration of anatomical relationships and physiological functions of the auditory analyzer [1]. The development of surgery of the middle ear and mastoid process has led over time to a decrease in the number of sanitizing general cavity radical operations on the ear in HCSO against the background of the rapid development of reconstructive otosurgery [5]. When choosing a method of surgical treatment of the chronic inflammatory process of the middle ear, preference is given to more gentle methods with simultaneous or delayed most complete restoration of anatomical structures, which significantly improves the functional results of such operations [6]. First of all, this can be explained by the expansion of the capabilities of modern hospitals, a change in the structure of surgical interventions, an increase in the number of reconstructive plastic interventions, the possibilities of which have significantly expanded today [8].

**The purpose of the study.** To psychoanalyse the exploitation of sanitizing and rehabilitative otosurgery in long-standing pussy otitis media in the verifiable expression and on the exemplification of the kinetics of substitutions in the correspondence of indefinite operative approaches in otorhinolaryngological medical centre of the Samarkand region.

**Materials and methods of research.** The psychoanalysis of the reporting documentation of otorhinolaryngological medical centre and polyclinics in Samarkand, Rosstat collections on the ubiquitousness of consideration and mastoidal cognitive semantics afflictions in Uzbekistan and in the Samarkand region, psychoanalysis of slaviv and strange creative writings fountain-heads in reference to contemporary undergrounds of operative treatment of behaviour towards of HCG and the narration of the publication was carried out. For the intentions of statistical processing of data file the Statistica 6. 0 announcement was used.

**Results and discussion.** For the fundamental time, a fundamental cognitive operation with trepanation of the mastoidal cognitive semantics for the instigative cognitive semantics in the intermediate consideration was performed in 1878 by Schwatze and Eysell, and afterwards this cognitive operation became extensively euphemistic pre-owned in operative participation [9, 10]. In the secondment one-half of the ordinal century, in progression to change the instigative focus in long-standing pussy otitis media,

indefinite modifications of oecumenical opening performances were exceptionally used. The undergrounds of Schwarze, Zaufal, Levin, and Giss are referred to the sanitizing fundamental performances of that continuance [11]. The Bondy cognitive operation is individual of the graeco-roman undergrounds of fundamental operations, on the other hand nowadays it is bounteous of verifiable interestingness [12]. A bounteous assuage procedure is the cognitive operation according to the disposition of V. When victimisation this technique, an consideration decrease is performed by oneself in the more elevated belonging of the double over of the corresponding name, compressible interweaves are exfoliated, and the possibility of off-white openings is performed in anatomical successiveness [13]. The infrequently euphemistic pre-owned undergrounds accommodate the cognitive operation on the Shtake [11, 12]. The communication for its deed is the demonstration of the expansive sinus, on account of when playacting this technique, the duct is bypassed from the front. This disposition became the justification of the endaural fundamental cognitive operation of the Tiss siblings [10]. At the corresponding time, bounteous assuage approaches focused on preserving the anatomical configurations of the intermediate consideration were actively highly-developed and improved. individual of the fundamental interventions with endaural aggrandizement was the Hoffmann technique. At the delimitation of the more elevated partition with the invest in and fore-part partitions of the audile canal, cardinal slashes are made, the integument flutter is separated. The audile ossicles and the sidelong partition of the garret are removed, the antrum is unsealed so all the more that it is accomplishable to participate it with a curet [11, 13]. With endaural access, an cognitive operation is furthermore performed on D. Rosengauz, Burge, Bockstein, Lempert, Gons [10, 14].

The disposition of B. Frantsuzov implies playacting operative interference transauricularly. therein case, the decrease starts out on the borderline of the curlicue leg, then, stretching the out possibility of the audile canal, it is allantoid from in the sky and at the end resulting in a semilunar decrease [10]. Modifications of this disposition are performances on the authority of Y. Genkin, A. Shulgi, Mathis [11, 13]. In his monograph, S. Gershman proffers another disposition of fundamental consideration operation with a composed behind-the-ear and endaural incision. first off an decrease is make-believe on the consideration double over and the compressible interweaves are exfoliated anteriorly, so a scalpel is inserted into the consideration traumatism from the sides flanks of the audile canal, so from the sides flanks of the consideration wound, the decrease of the compressible interweaves of the international audile canalise spread out a integument flutter is abbreviate elsewhere on its more



elevated wall, which is distant from the operative field. The off-white belonging of the cognitive operation is performed on the anatomical course of action pathologically neutered interweaves are removed, the partitions of the off-white opening and the instigation are smoothed [13]. With the aggregation of consciousness and experience, captivating into explanation the formal propinquity of indefinite involvements and the recurrently functionally unfavourable after-effect of fundamental operations, undergrounds of conservative-radical interventions focused on restoring the assistance of the audile instrument began to seem in progression to increase the conservation of the anatomical configurations of the tympanum [9]. individual of the fundamental conservative-radical undergrounds was the Barani cognitive operation and the Undritz disposition [11, 12]. In 1957 theologian planned another conservative-radical procedure – rearward atticotimpanotomy with conservation of the inviolate partition of the audile canal. Subsequently, this procedure was improved, M. Tos performed his have alteration of this operative interference on account of 1970 [12]. on the other hand when victimisation approaches with an inviolate wall, thither were spaces in the tympanic opening that were not approachable for operative manipulations [11, 14]. As a result, approaches chalk up been highly-developed with transitory displacement or emigration of the partition of the audile canal. Displacement of the off-white partition is achieved by mobilizing it by osteotomy and imperative it forward-moving collectively compressible tissues. With transitory removal, the compressible interweaves are fundamental separated, followed by osteotomy and the off-white occlusion is removed, which closer turn back to its accommodation and is strengthened by a muscle-fascial flap. The Wigand disposition incorporates both constituents of the procedure with the conservation of the partition and the procedure implying its emigration [12, 15]. A adapted mastoidectomy highly-developed by Farrior is furthermore euphemistic pre-owned to change indefinite classifications of cholesteatomas. This procedure is carried elsewhere by consideration aggrandizement and includes the uttermost augmentation of the cadaverous belonging of the audile canal, transcanal antecedent atticotimpanotomy with the reclamation of the antecedent atticus opening [12]. In 1986, N. Mishenkin planned the procedure of sanitizing performances with HCSO victimisation low-frequency ultrasound. If the instigative cognitive semantics is constricted to the limits extent of the tympanic cavity, he recommends playacting an intrameatal sanitizing microsurgical cognitive operation victimisation a "closed" disposition. Currently, in progression to change the diseased cognitive semantics in the tympanum, Anal-wall-upmastoidectomy (CWUM) is virtually

recurrently euphemistic pre-owned i. mastoidectomy with conservation of the rearward partition of the audile canal. It acknowledges you to abbreviate the postoperative period, carry through higher operational consequences and a more appropriate decorative effect. As a rule, it is performed in antiparallel with tympanoplasty and recall of the audile ossiculum chain. The deprivation of this procedure is the jeopardy of fall back and in consequence cardinal months or a gathering subsequently its implementation, a secondment stagecoach of operative treatment of behaviour towards is required, allowing to determine the consideration of the tympanic cavity. At the corresponding time, virtually interventions are performed nailed down the international audile canalise victimisationing epithympanic aggrandizement [14]. Canal-walldownmastoidectomy (CWDM), i. mastoidectomy with emigration of the rearward wall, is presently euphemistic pre-owned to some degree infrequently [15]. moreover to the reclamation of the focus of infection, thither is a interrogatory of restoring the configurations of the tympanum opening and material off-white in progression to make restitution the assistance of the audile instrument and correspondent collective reclamation of patients. In connectedness with this situation, in augmentation to sanitizing operations, anaplasty of the mastoidal and the tympanum was actively developed. In 1879, the physician Berthold performed a extraordinary myringoplasty for the fundamental time, during which the insufficiency of the tympanum was unsympathetic with a complimentary integument flutter [6].

In consequent second childhood a consubstantial cognitive operation was furthermore successfully euphemistic pre-owned by Politzer and Tangemann [8]. In the secondment one-half of the ordinal century, both auto- and allografts were actively euphemistic pre-owned to accelerate the insufficiency in the eardrum. For myringoplasty, not by oneself integument airfoils were euphemistic pre-owned on the other hand furthermore the material fascia, the meninx mater. In 1978, a procedure of corneal myringoplasty was planned [12]. To date, virtually recurrently in progression to make restitution the eardrum, the material dashboard and the suprachrachium are used. on the other hand gristle transplant operation is gaining popularity, as it keep away from postoperative complications. operative aggrandizement is performed either victimisationing the pad technique, i. nailed down an consideration incision, or victimisationing the overlayer technique, when aggrandizement is if nailed down the consideration canalise [7]. In contingency of insignificant insufficiencies of the tympanic membrane, a suprachrachial-cartilaginous flutter is euphemistic pre-owned on the vascular pedicle, parturition it victimisationing the stanchion procedure planned by Dornhoffer,

and in contingency of totality defects, they incline towards to application the gristly "shield" procedure in the Duckett alteration [15]. on account of virtually patients with HCSO with agonize from many connectors of the sound-conducting transaction at on a former occasion when playacting rehabilitative performances in progression to full make restitution function, it is all-important to appropriate into explanation the rigourousness of diseased substitutions in the intermediate ear. In connectedness with this situation, on all sides of the intermediate of the antepenultimate century, Wulstein planned five-spot alternatives for tympanoplasty. The fundamental classification is euphemistic pre-owned when by oneself the tympanum is annihilated and each over-the-counter configurations of the intermediate consideration are preserved. The secondment classification is when, in augmentation to the eardrum, the application of the hammering is destroyed. The thirdly classification of tympanoplasty according to Wulstein is applicative to the devastation of the tympanum with the devastation of the hammering and anvil. The one-quarter classification of cognitive operation is performed when, moreover to the above-named structures, the support members are furthermore destroyed. The one-fifth classification is when reparation the support in an oval-shaped windowpane [12]. Currently, when restoring the concatenation of audile ossicles, the measure of diseased substitutions in the tympanic opening is furthermore appropriated into account. fragmentary (PORP) or totality (TORP) prostheses make-believe of hydroxylapatite or titanium are euphemistic pre-owned in contingency of monolithic destruction to the audile off-white concatenation [17]. The examination stagecoach of tympanoplasty should always be the refurbishment of the eardrum. At the corresponding time, a gristle transplant be required to be additionally situated between the prostheses and the reconstructed tympanum in progression to preserve tightness in the postoperative amplitude [15]. In progression to accomplish a more appropriate operational result, to anticipate the exploitation of involvements and gets back moreover to restoring the morphology of the tympanum, it is all-important to reassemble the configurations of the material off-white subsequently fundamental surgery. In 1963, I. Potapov, and in 1977, N. Preobrazhensky, subsequently fundamental sanitizing operation on the intermediate ear, performed mastoidoplasty with gristle and off-white grafts, which importantly built the operational determination of the cognitive operation and contributed to the epidermization of the baccilar opening. In contemporary second childhood contemporary employers in otosurgery chalk up been actively developing. It has be remodelled accomplishable to application laser operation approaches in HCSO for the protected and efficacious emigration



of granulation, hyperplastic mucosa, all the more in spaces much as the cubby-hole of the ammunition windowpane and the facial nerve. Endoscopic interventions for long-standing otitis media chalk up furthermore be remodelled distributed. Endoscopes buoy ascertain residuary phenomena of the affliction in clandestine cavities, and buoy furthermore be euphemistic pre-owned for control intentions when removing cholesteatoma of the material off-white cavities, thereby reduction the oftenness of mastoidectomies and deliberate second-stage interventions. surrounded by the patients hospitalized in the otorhinolaryngological subdivisions of Samarkand, the comparative relation of this pathology has attended diminution in contemporary second childhood including surrounded by the children's population. The coefficient of expansion coefficient between the occurrence of afflictions of the consideration and mastoidal and chemist's shop come to see is 0. 79, i. thither is a orchestrate connectedness between these cardinal processes: with an aggrandizement in morbidity, the commensurate of chemist's shop come to see to the polyclinic furthermore enlarges ( $p < 0.05$ ). contempt this, operative sprightliness in otorhinolaryngological medical centre has accrued in contemporary years. The character of performances for HCG take care of to aggrandizement with a summit in 2015. At the corresponding continuance, in the constitution of performances for this pathology until 2017 fundamental interventions on the consideration predominate over dominate on account of 2017, when it transform into accomplishable to manipulate conservative-radical approaches and sanitizing hearing-preserving operations, the comparative relation of graeco-roman fundamental interventions is decreasing.

At the corresponding time, the character of rehabilitative performances reached 60%, and fundamental performances on the consideration did not be superior to 20%. The deed of operative interventions for HCG in the sovereign state Clinical infirmary No. 1 in the amplitude from 2015 to 2018 furthermore denatured in its constitution in relation to an aggrandizement in the participation of conservative-radical techniques. on the authority of CSOCB No. 1, the participation of sanitizing and rehabilitative approaches denatured as come after in 2015, fundamental sanitizing performances on the consideration – 65%, reconstructive-sanitizing performances – 14%, rehabilitative performances – 21%. In 2020 fundamental sanitizing performances – 7%, reconstructive-sanitizing performances – 8%, rehabilitative performances – 85%. generally, for the amplitude from 2015 to 2020, we buoy vestige a piecemeal diminution in the character of oecumenical opening sanitizing interventions with a contemporaneous aggrandizement in rehabilitative operations. The application of indefinite operative



approaches in Samarkand in the treatment of behaviour towards of HCG as a proportion for 2018 is as come after fundamental consideration operation 35%, rectification of the tympanic opening 18%, tympanoplasty 30%, abstracted atticotomy 11%, tympanotomy 4%, sanitizing performances with tympanoplasty 2%. At the corresponding time, the possibility of choosing a hearing-preserving operative interference is higher in patients with few affliction experience.

**Conclusions.** Over time, otosurgery has undergone significant changes in its development. From relatively simple methods of sanitizing operations, the main goals of which were primarily the elimination of the focus of chronic inflammation and the prevention of complications, they gradually moved to more complex gentle techniques, interventions involving simultaneous restoration of the structures of the tympanic cavity and the mastoid process, reconstructive plastic interventions that allow to achieve maximum restoration of anatomical relationships and the function of the auditory analyzer. To date, the proportion of reconstructive and reconstructive-sanitizing interventions prevails in otorhinolaryngological hospitals. The incidence of diseases of the ear and mastoid process by 2019 tends to decrease both in the Samarkand region and in the whole territory of the Republic of Uzbekistan. At the same time, the incidence has decreased not only among the adult population, but also among people under the age of 18. The dispensary registration of such patients changed in accordance with the change in the incidence rate, reaching a peak by 2015 and decreasing by 2020. Despite the decrease in morbidity in recent years, surgical activity in otorhinolaryngological hospitals in Samarkand is increasing, which is primarily due to an increase in the number of reconstructive plastic interventions.

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