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**« ZAMONAVIY ILM-FAN VA INNOVATSIYALAR NAZARIYASI » NOMLI
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O'ZBEKISTON RESPUBLIKASI PREZIDENTINING 2020 YIL 2-MART KUNGI «ILM, MA'RIFAT VA RAQAMLI IQTISODIYOTNI RIVOJLANTIRISH YILI»DA AMALGA OSHIRISHGA OID DAVLAT DASTURI TO'G'RISIDA»GI FARMONIDA KO'ZDA TUTILGAN VAZIFALARNI IJROSINI TA'MINLASH MAQSADIDA «INNOVATIVE WORLD» MCHJ TOMONIDAN TA'SIS ETILGAN «ORIENTAL JOURNAL ACADEMIC AND MULTIDISCIPLINARY JOURNAL (OJAMR)» ILMIY-USLUBIY JURNALINING (O'ZBEKISTON RESPUBLIKASI PREZIDENTI ADMINISTRATSIYASI HUZURIDAGI AXBOROT VA OMMAVIY KOMMUNIKASIYALARNI RIVOJLANTIRISH AGENTLIGINING 138572-SONLI GUVOHNOMA HAMDA ISSN 3030-3079) "ZAMONAVIY ILM-FAN VA INNOVATSIYALAR NAZARIYASI" NOMLI ILMIY, MASOFAVIY RESPUBLIKA ILMIY-AMALIY ONLINE KONFERENSIYASINI E'LON QILADI.

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ESLATMA! KONFERENSIYA MATERIALLARI TO'PLAMIGA KIRITILGAN MAQOLALARDAGI RAQAMLAR, MA'LUMOTLAR HAQQONIYLIGIGA VA KELITIRILGAN IQTIBOSLAR TO'G'RILIGIGA MUALLIFLAR SHAXSAN JAVOBGARDIRLAR.

NEUROLOGICAL ASSESSMENT OF POSTOPERATIVE PATIENTS UNDERGOING CORONARY ARTERY BYPASS GRAFTING (CABG)

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Relevance: The neurological assessment of postoperative CABG patients highlights key differences in surgical techniques. Meta-analysis shows that off-pump CABG reduces cognitive impairment risk by 49% and lowers stroke rates compared to on-pump procedures (Mohamed et al., 2025). The on-pump beating-heart CABG (OPBHC) technique offers a balanced alternative, reducing mortality and perioperative complications (Nenna et al., 2024). Despite advancements, up to 80% of CABG patients experience cognitive decline (Когнитивных et al., 2023). Prior PCI does not worsen CABG outcomes, though patients often have higher risks (Saitto et al., 2024). In dialysis patients, CABG offers no clear survival advantage over PCI (Tuttle & Weiner, 2023). These findings emphasize the need for tailored surgical strategies and thorough neurological monitoring.

Purpose of the research: The objective of this study was to assess the neurological status of patients after CABG, comparing outcomes between a control group receiving standard postoperative care and a main group undergoing an enhanced neurological monitoring protocol.

Materials and Methods: This prospective study was conducted at the Fergana Regional Branch of the Republican Specialized Scientific Practical Medical Center of Cardiology and included 62 patients who underwent CABG. Patients were divided into two groups: Main group (n = 31): Received intensive neurological monitoring, including cognitive assessments and continuous cerebral oxygenation measurement. Control group (n = 31): Received standard postoperative care without specialized neurological assessments. Neurological status was evaluated using the Mini-Mental State Examination (MMSE), NIH Stroke Scale (NIHSS), and electroencephalography (EEG). Data were analyzed using SPSS, with statistical significance set at $p < 0.05$.

Results and Discussion: Postoperative neurological complications were observed in 21% of the total patients (13 out of 62), with a higher prevalence in the control group (9 patients, 29%) compared to the main group (4 patients, 13%) ($p = 0.032$). Cognitive dysfunction (MMSE score < 24) was detected in 25% of the control group and 10% of the main group ($p = 0.041$), indicating a significant benefit of enhanced monitoring. Stroke

incidence was 9.7% in the control group and 3.2% in the main group, though this difference was not statistically significant ($p = 0.08$).

EEG abnormalities, including slow-wave activity suggestive of cerebral hypoxia, were more frequent in the control group (16% vs. 6%, $p = 0.045$). Cerebral oxygen saturation levels were significantly lower in patients who developed postoperative neurological deficits ($p = 0.022$), emphasizing the role of continuous monitoring in preventing complications.

These findings suggest that enhanced neurological monitoring post-CABG can reduce the incidence of cognitive decline and other neurological impairments. The data support the implementation of routine neurocognitive assessments and cerebral perfusion monitoring in postoperative care protocols.

Conclusion: Postoperative neurological complications remain a critical concern in CABG patients. This study demonstrates that enhanced neurological monitoring can significantly reduce cognitive impairment and improve early detection of complications. Implementing routine neurological assessments, including MMSE and EEG, alongside cerebral oxygenation monitoring, may enhance patient outcomes and reduce long-term morbidity. Further large-scale studies are required to validate these findings and optimize post-CABG care strategies.

References:

1. Abdumuminov B.R., Eminov R.I., & Gulomov K.K. (2023). UNDERSTANDING FETAL CIRCULATION AND THE TRANSITION TO POSTNATAL CIRCULATION: SHUNTS, PLACENTA, AND CONGENITAL HEART DEFECTS. *Экономика и социум*, (6-1 (109)), 14-21.
2. DUE, M. A. I. N. A., & FURUNCLES, T. (2025). Universal Xalqaro Ilmiy Jurnal.
3. Gulomov, K. K., Juraev, S. B., Khamdamov, R. A., Kholikov, B. M., & Meliboev, R. A. (2025, February). IMPROVING THE TREATMENT OF COMPLICATIONS IN ENDOUROLOGICAL OPERATIONS FOR UROLITHIASIS. In *INTERNATIONAL CONFERENCE ON SCIENCE, ENGINEERING AND TECHNOLOGY* (Vol. 2, No. 1, pp. 31-33).
4. Juraev, S. B., Kholikov, B. M., & Sh, P. S. (2025, February). PREVENTIVE MEASURES FOR COMPLICATIONS AFTER GASTROINTESTINAL SURGERY. In *INTERNATIONAL CONFERENCE ON MULTIDISCIPLINARY STUDIES AND EDUCATION* (Vol. 2, No. 1, pp. 11-12).
5. Jurayev S.B. (2024). CURRENT TREATMENT OPTIONS OF ADHESIVE SMALL BOWEL OBSTRUCTION (LITERATURE REVIEW). <https://doi.org/10.5281/zenodo.14506496>

6. Kh, F. N., & Juraev, S. B. (2025, January). PREVENTION OF TROPHIC ULCERS IN PATIENTS WITH ATHEROSCLEROSIS OF THE FOOT ARTERIES. In *INTERNATIONAL CONFERENCE ON MULTIDISCIPLINARY STUDIES AND EDUCATION* (Vol. 2, No. 1, pp. 4-6).
7. Kh, F. N., & Juraev, S. B. (2025, January). PREVENTION OF TROPHIC ULCERS IN PATIENTS WITH ATHEROSCLEROSIS OF THE FOOT ARTERIES. In *INTERNATIONAL CONFERENCE ON MULTIDISCIPLINARY STUDIES AND EDUCATION* (Vol. 2, No. 1, pp. 4-6).
8. Khamdamov , R. (2025). ANALYSIS OF RISK FACTORS AND PREVENTIVE APPROACHES FOR MORPHOFUNCTIONAL ALTERATIONS IN NASAL ALAE DUE TO FURUNCLES. *Universal International Scientific Journal*, 2(1), 100–109. Retrieved from <https://universaljurnal.uz/index.php/jurnal/article/view/1412>
9. Kholikov B.M. (2024). POSTOPERATIVE DELIRIUM: UNDERSTANDING CAUSES, RISKS, AND MANAGEMENT STRATEGIES. <https://doi.org/10.5281/zenodo.14518099>
10. Kholikov, B. M. (2025, February). POSTOPERATIVE DELIRIUM IN CABG PATIENTS: IDENTIFYING RISKS AND OPTIMIZING PERIOPERATIVE MANAGEMENT. In *INTERNATIONAL CONFERENCE ON SCIENCE, ENGINEERING AND TECHNOLOGY* (Vol. 2, No. 1, pp. 14-16).
11. Pirmatov, S. (2025). UROGENITAL QANDLI DIABETIK VEGETATIV NEVROPATIYANING KLINIK XUSUSIYATLARI VA DAVOSI. *Universal xalqaro ilmiy jurnal*, 2(1), 59-67.
12. R. A. Khamdamov. (2025). DIAGNOSTIC APPROACHES AND PREVENTION OF MORPHOFUNCTIONAL TRANSFORMATION IN NASAL ALAE FURUNCLES. <https://doi.org/10.5281/zenodo.14825695>
13. Sh, P. S. (2025, February). UROGENITAL DIABETIC NEUROPATHY: CLINICAL FEATURES AND TREATMENT. In *INTERNATIONAL CONFERENCE ON MULTIDISCIPLINARY STUDIES AND EDUCATION* (Vol. 2, No. 1, pp. 7-9).
14. Shuxrat o'g'li, P. S. (2023). EEG CHARACTERISTICS OF DIFFERENT TYPES OF FOCAL EPILEPSY IN ADULT PATIENTS. *Web of Medicine: Journal of Medicine, Practice and Nursing*, 1(9), 1-3.
15. Ugli, G. K. K. (2025, February). SUBACUTE SCLEROSING PANENCEPHALITIS IN KIDS: EEG & MRI TRENDS PRE-AND POST-2023. In *INTERNATIONAL CONFERENCE ON SCIENCE, ENGINEERING AND TECHNOLOGY* (Vol. 2, No. 1, pp. 28-30).
16. Zokirjonov, D. Z., & G'ulomov, Q. (2025). THE SIGNIFICANCE OF VITAMIN D LEVELS ON MUSCULOSKELETAL STRENGTH, ATHLETIC PERFORMANCE, AND INJURY PREVENTION. *JOURNAL OF INTERNATIONAL SCIENTIFIC RESEARCH*, 2(4), 419-430.

17. Ёкубов D. On differential diagnostics of spinal cord pathology of organic and functional genesis / Д. Ёкубов, А. Мазалова. – Актуальные вопросы фундаментальной медицины: сегодня и в будущем. – 2024. – № 1. – С. 36.
18. Пирматов, Ш. Ш., Рахматуллаева, Н. И., & Холматов, Р. И. (2021). ОСОБЕННОСТИ ЭЭГ РАЗЛИЧНЫХ ТИПОВ ФОКАЛЬНОЙ ЭПИЛЕПСИИ У ВЗРОСЛЫХ ПАЦИЕНТОВ. *Экономика и социум*, (10 (89)), 964-971.



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