Visualization of Medical Images

Bahramov Rustam Rakhmatullaevich
Assistant at Samarkand State Medical Institute

Yusupova Zilola Islombekovna, Odilov Kahramon Ergashevich,
Ortikova Feruza Anvar qizi, Shukurov Axror Abdullayevich
Students of the Pharmacy Faculty at Samarkand State Medical Institute

Abstract: The role of medical images in medicine has become increasingly important in recent years. Accurate diagnosis for patients is of great importance in today's world. The modern methods of treatment, diagnostic methods, early detection and prevention of diseases, and the promptness of the first aid provided to the patient by healthcare professionals are all related to the accuracy of medical images. The ambiguity of images can lead to incorrect diagnosis of the patient.

Keywords: Medical images, visualization, algorithm, computer technologies, medical devices.

INTRODUCTION

The methods of visualizing medical images are closely related to modern electronic medical devices in medicine. Before the discovery of X-rays, healthcare professionals relied on sensory perceptions and collected samples for visual examination, palpation, auscultation, percussion, and taste. The era of diagnostics began with the discovery of X-rays; in 1901, German physicist Wilhelm Conrad Röntgen was awarded the Nobel Prize. Today, radiation diagnostics are widely used to accurately and minimally invasively study the internal structure and functions of the human body. In our country, modern medical devices are used for examinations in healthcare. The results of medical images obtained from modern medical devices play a key role in accurate diagnosis for healthcare professionals.
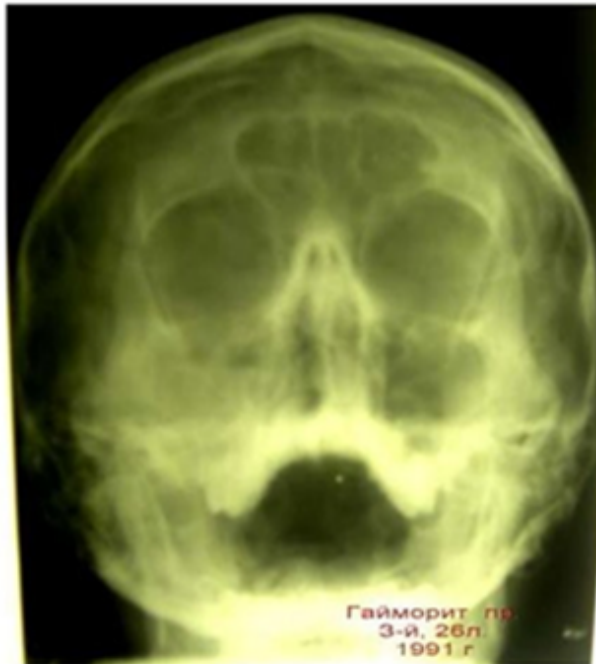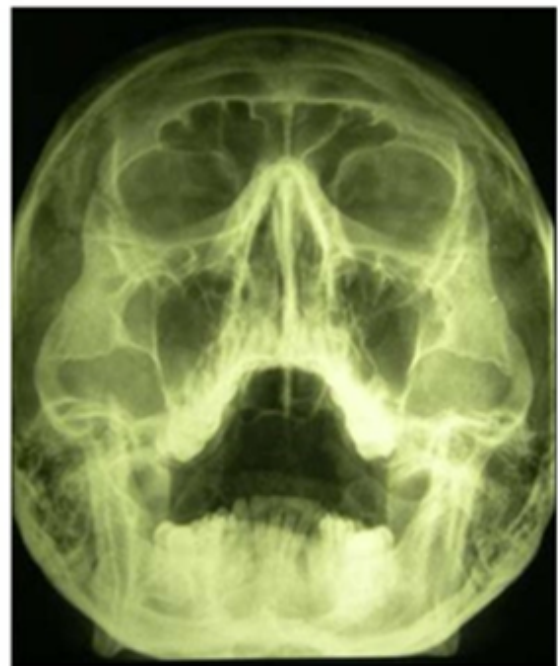

1-Image. X-ray machine

2-Image. Modern X-ray machine

Patients' diseases are diagnosed quickly and accurately using modern digital medical technologies. Modern digital medical technologies include computer tomography, ultrasound, echocardiography, laboratory equipment, and other medical devices.

3-Image. Analog image   *4-Image. Digital image*

Visualization of medical images is a method and process of creating visual images of the internal parts of the human body for clinical analysis and medical examination. Medical images help to identify internal structures hidden by skin, flesh, and bones, diagnose diseases, and treat them. The accuracy and clarity of medical images are related to visualization. Ensuring correct treatment for patients and avoiding misdiagnosis by healthcare professionals depends on the accuracy of medical images.

Conclusion. Modern digital medical technology is used in all healthcare fields in our country. Patients' diseases are diagnosed quickly and accurately using modern digital medical technologies. The accuracy and clarity of images guarantee that healthcare professionals do not make mistakes in diagnosing patients. Modern digital medical technologies include computer tomography, ultrasound, echocardiography, laboratory equipment, and other medical devices.

REFERENCES

1. Авдеенко, Т.В., Алетдинова, А.А. Цифровизация экономики на основе совершенствования экспертных систем управления знаниями // Научно-технические ведомости Санкт-Петербургского государственного политехнического университета. Экономические науки. 2017. Т. 10. № 1. С. 7-18.

2. Гребенщикова, Е.Г. Персонализация медицины и медикализация будущего // Философские проблемы биологии и медицины. Сб. статей. М.: Моск. гос. медико-стоматолог. университет им. А.И. Евдокимова, 2015. С. 75-77.

3. Бахрамов Р. и др. РОЛЬ И ЗНАЧЕНИЕ МАТЕМАТИЧЕСКОЙ СТАТИСТИКИ В МЕДИЦИНЕ //Eurasian Journal of Academic Research. – 2022. – Т. 2. – №. 13. – С. 1615-1619.

4. Rakhmatullaevich B. R. et al. STATISTICAL ANALYSIS OF MEDICAL DATA AND PROCESSING IN MS EXCEL //British View. – 2023. – Т. 8. – №. 1.

5. Абдуллаева С., Бахрамов Р., Вохидов А. ТИББИЁТ ОЛИЙ ЮРТИ

ТАЛАБАЛАРИНИНГ АХБОРОТ ТЕХНОЛОГИЯЛАРИ ФАНИНИ ЎРГАНИШДАГИ АҲАМИЯТИ //Eurasian Journal of Academic Research. – 2022. – Т. 2. – №. 5. – С. 686-689.

6. Кубаев А. Э., Бахрамов Р. Р., Абдуллаева С. Б. Тиббий тасвирларни тиббиётдаги аҳамияти //Academic research in educational sciences. – 2021. – Т. 2. – №. 12. – С. 872-877.

7. Бахрамов Р. Р., Маликов М. Р., Абдурахмонов Р. П. ЗАБОЛЕВАНИЯ ВЫЗВАННЫЕ ГЕЛЬМИНТАМИ У ДЕТЕЙ И ПРОГНОЗ РАЗВИТИЯ ЭТИХ ЗАБОЛЕВАНИЙ //Eurasian Journal of Medical and Natural Sciences. – 2022. – Т. 2. – №. 5. – С. 58-62.

8. Бахрамов Р. Р., Маликов М. Р. БОЛАЛАРДА ПАРАЗИТЛАРНИ АНИҚЛАШДА ФУНКЦИОНАЛ ДИФФЕРЕНЦИАЛ ТЕНГЛАМАДАН ФОЙДАЛАНИШ УСУЛИ //Academic research in educational sciences. – 2021. – Т. 2. – №. 3. – С. 280-288.

9. Bakhramov R. R., Abdurakhmonov R. P., Malikov M. R. Diseases caused by helminths occuring in children of world countries and prognosis of these diseases //Web of Scientist: International Scientific Research Journal. – 2022. – Т. 3. – №. 3. – С. 330-334.

10. Бахрамов Р. Р., Абдурахмонов Р. П., Маликов М. Р. ДУНЁ МАМЛАКАТЛАРИ БОЛАЛАРИДА УЧРАЙДИГАН ГИЖЖАЛАР (ГИЛЬМЕНТ) КЕЛТИРИБ ЧИҚАРАДИГАН КАСАЛЛИКЛАР ВА УШБУ КАСАЛЛИКЛАР ПРОГНОЗИ.

11. Бахрамов Р. и др. БОЛАЛАРДА ГИЖЖА КАСАЛЛИГИНИ ПРОГНОЗ ҚИЛИШДА МАТЕМАТИК МОДЕЛЛАШТИРИШДАН ФОЙДАЛАНИШ //Eurasian Journal of Medical and Natural Sciences. – 2022. – Т. 2. – №. 12. – С. 172-177.

12. Rakhmatullaevich B. R. et al. STATISTICAL ANALYSIS OF MEDICAL DATA AND PROCESSING IN MS EXCEL //British View. – 2023. – Т. 8. – №. 1.

13. Бахрамов Р., Абдурахмонов Р., Маликов М. ГИЖЖА КАСАЛЛИГИНИ ПРОГНОЗ ҚИЛИШДА МАТЕМАТИК СТАТИСТИКАДАН ФОЙДАЛАНИБ ИШОНАРЛИЛИК КОЭФФИЦИЕНТИНИ АНИҚЛАШ //Евразийский журнал права, финансов и прикладных наук. – 2023. – Т. 3. – №. 2. – С. 146-151.