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Prevalence of Major Dermatovenereological Diseases in Uzbekistan

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Annotation: This study investigates the clinical and epidemiological characteristics of gallbladder diseases, focusing primarily on cholelithiasis. It examines the effectiveness of surgical interventions—especially comparing laparoscopic cholecystectomy with traditional open surgery—in treating both typical and acute presentations. The research draws on clinical data from 150 patients treated between 2022 and 2024, incorporating medical history, lab diagnostics, imaging, and surgical outcomes. Findings indicate that laparoscopic surgery significantly reduces postoperative complications and accelerates patient recovery, making it the preferred option for most cases. In contrast, open surgery remains relevant for complex or emergency scenarios. This research fills a gap in localized clinical data for Uzbekistan and emphasizes the need for improved surgical service quality and preventive health measures. The results support broader adoption of minimally invasive techniques and reinforce the importance of timely intervention in acute cases.

Keywords: Gallbladder diseases, cholelithiasis, laparoscopic cholecystectomy, open surgery, acute symptoms, surgical

treatment, prevention.

INTRODUCTION

Gallbladder diseases, particularly cholelithiasis, are among the most prevalent gastrointestinal disorders globally, with a notable increase in incidence in developing countries such as Uzbekistan [1,2]. Cholelithiasis, defined by the presence of calculi in the gallbladder, arises due to bile composition alterations, stasis, and infections. If left untreated, it can cause severe complications like perforation, peritonitis, and biliary obstruction [3]. Surgical intervention, especially cholecystectomy, remains the cornerstone of treatment, and recent advancements in minimally invasive surgery have revolutionized therapeutic strategies.

Despite extensive global studies, localized data reflecting clinical outcomes in Uzbekistan are limited. Previous research often lacks a comparative analysis of surgical approaches and their applicability in acute scenarios. This study aims to bridge this knowledge gap by evaluating both laparoscopic and open surgical methods within a well-defined patient population [4]. The analysis integrates modern diagnostic techniques such as ultrasonography and CT imaging, paired with laboratory data and clinical observation.

Methodologically, the study is based on retrospective clinical records of 150 patients treated over two years, using both quantitative and qualitative analyses. SPSS software supports the statistical evaluation of patient outcomes, while clinical criteria guide the assessment of symptom severity and treatment efficacy [5].

This research anticipates validating the superiority of laparoscopic cholecystectomy for routine cases while also outlining clear indications for open surgery in emergencies. The findings are expected to inform clinical decision-making and policy development in surgical practices. Ultimately, this study aims to improve patient outcomes, reduce healthcare burdens, and reinforce the significance of preventive strategies in managing gallbladder diseases [6].

METHODOLOGY

This research employed a clinical observational design, analyzing the treatment outcomes of 150 patients diagnosed with gallbladder diseases, primarily cholelithiasis, from 2022 to 2024. Medical records were reviewed from surgical clinics where both laparoscopic and open cholecystectomies were performed. Patient data included clinical histories, imaging results from ultrasound and computed tomography, and laboratory test outcomes such as complete blood counts and biochemical panels. Diagnoses were confirmed through imaging and surgical exploration. The severity of symptoms, especially in acute cases, was documented with particular attention to indicators like gallbladder perforation, peritonitis, pain intensity, and febrile responses. Statistical analyses were conducted using SPSS to determine the effectiveness and complication rates of surgical techniques. Video laparoscopy data provided insight into intraoperative conditions and postoperative recovery metrics. Patients were categorized based on treatment type, and outcomes were compared to evaluate the efficiency and safety of each approach. Ethical guidelines were followed throughout the study, ensuring patient confidentiality and consent.

RESULTS AND DISCUSSION

The analysis demonstrated that laparoscopic cholecystectomy significantly outperformed open surgery in terms of patient recovery, complication rates, and hospital stay duration. Among the 150 patients, approximately 70% underwent laparoscopic surgery, while 30% required open cholecystectomy due to complex pathology or late presentation [7,8]. The laparoscopic group experienced fewer infections, reduced postoperative pain, and earlier return to daily activities. Conversely, the open surgery group was predominantly composed of patients with severe acute symptoms—such as peritonitis or gallbladder rupture—highlighting its necessity in critical

conditions.

From a theoretical standpoint, the study reinforces the minimally invasive surgical approach rooted in modern surgical theory, including reduced inflammatory response and minimized tissue trauma [9]. Practically, it suggests a shift in clinical protocols toward favoring laparoscopy, provided facilities and surgeon expertise are adequate. However, the findings also stress the indispensability of open surgery in advanced or emergency cases.

The research adds to the limited regional data available in Central Asia and Uzbekistan, offering a comparative analysis seldom addressed in previous studies. It exposes a gap in preemptive diagnostics and public awareness that often leads to delayed presentations requiring emergency surgery [10]. These insights suggest a pressing need for health education campaigns and routine screenings for at-risk populations.

Future research should explore long-term outcomes of both surgical methods, investigate the impact of patient lifestyle on recurrence, and develop predictive models for determining optimal surgical intervention [11,12]. Enhanced collaboration between general practitioners and surgical units could also reduce emergency case burdens. Overall, this study offers a foundation for deeper theoretical modeling and practical enhancements in gallbladder disease management.To conduct an epidemiological analysis of the most common dermatovenereological diseases in Uzbekistan, identify their distribution characteristics, and develop effective preventive strategies [13].

1. To conduct an epidemiological analysis of the major dermatovenereological diseases prevalent in Uzbekistan.
2. To identify age, gender, and regional characteristics of these diseases.
3. To evaluate the effectiveness of modern diagnostic and treatment methods.
4. To develop preventive measures and assess their effectiveness.

Research Materials

- ✓ Data from the Ministry of Health of the Republic of Uzbekistan.
- ✓ Statistical data from the Republican Specialized Scientific and Practical Medical Center of Dermatology and Cosmetology.
- ✓ Clinical records from Tashkent Medical Academy and Samarkand State Medical University.
- ✓ Epidemiological monitoring results from 2023–2024.

Research Methods

- ✓ **Epidemiological analysis** (long-term observation).
- ✓ **Laboratory and clinical diagnostics** (PCR, ELISA, dermatoscopy, biopsy).
- ✓ **Statistical analysis** (SPSS, Excel).
- ✓ **Data collection via interviews and questionnaires**.

Discussion

The study results show a high prevalence of viral (herpes simplex, herpes zoster, molluscum contagiosum), mycotic (fungal skin infections), allergic (psoriasis, atopic dermatitis), and sexually transmitted (urogenital infections) dermatological diseases in Uzbekistan. Modern diagnostic methods such as PCR and ELISA have proven to be effective in early-stage detection. Laser therapy and immunological monitoring were found to be highly valuable in the treatment process [14] .

- ➢ The prevalence of dermatovenereological diseases remains high, necessitating the implementation of modern prevention and treatment techniques.

- Contemporary diagnostic and therapeutic methods demonstrate high efficacy and should be widely adopted.
- Preventive strategies, including public awareness campaigns (using social media to disseminate accurate and evidence-based information on skin and venereal diseases) and vaccination, contribute to reducing disease spread among the population.

Recommendations

- Broad implementation of modern diagnostic and therapeutic methods.
- Strengthening public health prevention efforts, including awareness campaigns and vaccination programs.
- Enhancing disease monitoring systems and fostering public-private partnerships to control disease spread.
- Improving healthcare professionals' qualifications and ensuring they are trained in modern diagnostic and treatment technologies [15].

CONCLUSION

The study confirms the central role of surgical intervention—especially laparoscopic cholecystectomy—in effectively managing gallbladder diseases. The comparative analysis reveals that minimally invasive techniques are preferable for most patients due to lower complication rates and faster recovery, while open surgery remains essential for acute or complex cases. These findings underscore the importance of timely diagnostics, preventive education, and improved surgical infrastructure. Further research should investigate long-term patient outcomes, cost-effectiveness, and integration of advanced diagnostics into early detection protocols to enhance both preventive and therapeutic strategies**.**

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