



## CLINICAL PROFILE OF PATIENTS WITH HIGH INTRA-ABDOMINAL PRESSURE IN MILITARY MEDICINE

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### ABSTRACT

The study examines the clinical characteristics of patients with increased intra-abdominal pressure (IAP) in the context of acute abdominal pathology, focusing on the specific conditions encountered in military medicine. Increased IAP is a critical factor influencing outcomes in acute abdominal conditions and requires prompt diagnosis and management. This research evaluates the prevalence, diagnostic methods, and treatment approaches for elevated IAP among military personnel and civilians with comparable conditions. Key findings highlight the differences in clinical presentations, risk factors, and outcomes based on occupational and environmental exposures unique to military settings. Recommendations for improved diagnostic protocols and therapeutic interventions are provided to enhance outcomes for this high-risk patient population.

**KEYWORDS:** Increased intra-abdominal pressure, acute abdominal pathology, military medicine, clinical characteristics, abdominal compartment syndrome, diagnosis, treatment, risk factors.

### INTRODUCTION

Intra-abdominal hypertension syndrome (IAH) is a serious complication in patients with acute abdominal pathology, requiring timely recognition and intensive treatment. Increased IAP can lead to the development of multiple organ failure and significantly worsen the prognosis in such patients. Early detection and comprehensive treatment of IAH, including monitoring of intra-abdominal pressure and correction of hemodynamic disorders, are key factors in improving treatment outcomes and reducing the risk of complications (1,2).

The aim of this study is to assess the incidence of intra-abdominal hypertension in patients with acute abdominal pathology admitted for treatment in military medicine.

Research material: A study was conducted of 232 patients with emergency surgical diseases and abdominal injuries who underwent treatment at the intensive care unit of the Republican Scientific Center for Emergency Medical Care of the Ministry of Health of the Republic of Uzbekistan and the Military Hospital of the Ministry of Health of the Republic of Uzbekistan in the period from 2021 to 2024. The main group (MG) consisted of 112 military patients (48.3%), in this group, subgroup A consisted of 39 patients (34.8%) with intra-abdominal hypertension (IAH+), subgroup B - 73 (65.2%) without intra-abdominal hypertension (IAH-), (Table 1). The comparison group (CG) consisted of 120 civilian patients (51.7%). Subgroup A CG consisted of patients with IAH (49 patients) (40.8% of the number of CG patients), subgroup B-CG consisted of 71 patients (59.2%) (Table 1).

Table 1.

**Distribution of patients into groups and subgroups**

by groups	And the subgroup, patients with IAH		In the subgroup patients without VBG		total	
	n	%	n	%	n	%
MG - main group, patients are military personnel	39	34,8%	73	65,2%	112	48,3%
CG comparison group, civilian patients	49	40,8%	71	59,2%	120	51,7%

**Note: IAH intra-abdominal hypertension**

The research methods included: clinical method, questionnaire survey, measurement of intra-abdominal pressure with Faley catheter according to the method of S.E.Bradley and G.P.Bradley, statistical processing of results.

**RESEARCH RESULTS**

Abdominal trauma is more common in military personnel, which may be due to service conditions and greater susceptibility to injury. Civilian patients (CP) with IAH- subgroup A-CP - also demonstrate a high frequency of acute surgical conditions, such as organ perforation, acute intestinal obstruction - 6 (12.3%) and 5 (10.2%), respectively..

Liver cirrhosis, acute infections, diabetes mellitus and arterial hypertension are found only in CG, however, patients with IAH (subgroup -B) demonstrate a higher risk of complications. In the subgroups of patients with IAH, a distribution was made according to the degrees of IAH. I degree of IAH: Most common in both subgroups. In patients with MG-A, the frequency is 48.7%. In the CG-A subgroup, the frequency is slightly higher - 40.8%. II degree of IAH: The second most common degree of hypertension in both subgroups.

In MG-A it is 35.9%, in CG-A - 30.6%. Grade III IAH: Moderate increase in intra-abdominal pressure is less common. The frequency is 15.4% in MG-A and 20.4% in CG-A. Grade IV IAH: The most severe degree is much less common. It was not found in MG-A, and in CG-A - 8.2%.

Thus, the distribution of the degrees of IAH in the subgroups MG-A and CG-A has a similar character, with a predominance of degrees I and II. The IV degree (the most severe) is more often observed in civilian patients (CG-A), which may be associated with age and the presence of comorbid pathology.

We analyzed the pain in the heart area of patients. The results of the study showed that patients in subgroups A of both groups demonstrate a significantly higher frequency of anginal pain (30.8%) compared to subgroups B (4.1%). Thus, in the group of civilians, the frequency of anginal pain in patients with IAH is 57.1%, which also indicates a relationship between an increase in IAH and the occurrence of anginal pain (point 3). It should be noted that the frequency of heart pain was significantly higher in the CG (p<0.05).

In general, the intensity of anginal pain according to the VAS of pain in the MG was lower than in the CG. As for the subgroups, the intensity of pain in the heart region in military personnel with IAH (6.8 ± 1.8) was higher than in patients without IAH (4.0 ± 1.5), civilian patients with IAH also report high pain intensity (7.5 ± 1.5) compared to patients without IAP

( $4.0 \pm 1.5$ ), which indicates more serious cardiovascular problems in this category of patients (Table 8). The duration of angina pain in military personnel with IAH CG is on average 15 minutes, which is a significant indicator, given its impact on general health.

### CONCLUSION

- Abdominal injuries are more common in military personnel, which may be due to the conditions of service and greater susceptibility to injury.
- The distribution of the degrees of IAH in the subgroups with IAH has a similar character, with a predominance of degrees I and II. The IV degree (the most severe) is more often observed in civilian patients with IAH, which may be associated with age and the presence of comorbid pathology.

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