***Conclusion***

Based on the findings presented in Graph 1, it is evident that "Chronic Calculous Cholecystitis" predominates among the biopsy specimens collected from patients. Specifically, within the adult population, individuals aged between 61 and 70 years (as illustrated in Graph 2) exhibit the highest incidence of this condition. Notably, there were no reported cases of cholecystitis observed in children or individuals up to 20 years of age. Among patients aged 61–70 years, "Chronic Calculous Cholecystitis" emerged as the most prevalent type of cholecystitis.

These findings underscore the importance of early detection and management of cholecystitis, particularly among individuals in the age group of 61–70 years. Additionally, they highlight the need for further research to explore the underlying factors contributing to the higher incidence of "Chronic Calculous Cholecystitis" in this demographic. Furthermore, it emphasizes the significance of preventive measures and lifestyle interventions to mitigate the risk of developing cholecystitis,especially in susceptible age group.

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## AORTIC DISSECTION IN AUTOPSIES IN GOMEL REGION, 2023: ANALYSIS AND FINDINGS

***Introduction***

While uncommon, acute aortic dissection (AAD) is a rare but catastrophic disorder. Aortic dissection is due to the separation of the layers of the aortic wall. A tear in the intimal layer results in the progression of the dissection (either proximal or retrograde) chiefly due to the entry of blood in between the intima and media. Predisposing high-risk factors for non-traumatic aortic dissection include hypertension, an abrupt, transient, severe increase in blood pressure, genetic conditions, pre-existing aortic aneurysm, atherosclerosis, pregnancy and delivery, family history, aortic instrumentation or surgery, and inflammatory or infectious diseases that cause vasculitis [1].

There are two main anatomic classifications used to classify aortic dissection. There is the Stanford system in which Type A involves the ascending aorta, regardless of the site of the primary intimal tear. Type A dissection is defined as a dissection proximal to the brachiocephalic artery. Type B aortic dissection originates distal to the left subclavian artery and involving only descending aorta. The other classification system is the DeBakey system where Type 1 originates in the ascending aorta and extends to at least the aortic arch. Type 2 originates in and is limited to the ascending aorta. Type 3 begins in the descending aorta and extends distally above the diaphragm (type 3a) or below the diaphragm (type 3b). The incidence of aortic dissection is reported to be 5

to 30 cases per 1 million people per year (compared to the much more common condition of acute myocardial infarction, which affects approximately 4400 cases per 1,000,000 person-years) [1].

Possible complications of aortic dissection include death due to severe internal bleeding, organ damage, such as kidney failure or life-threatening intestinal damage, stroke, aortic valve damage, rupture into the lining around the heart (cardiac tamponade) [2].

Detecting an aortic dissection can be a challenge because the symptoms are similar to those of many other health problems. An aortic dissection may be suspected if there is sudden tearing or ripping chest pain, blood pressure difference between the right and left arms, widening of the aorta on chest X-ray. Tests to diagnose aortic dissection include transesophageal echocardiogram (TEE), computerized tomography (CT) scan of the chest, magnetic resonance angiogram (MRA). An aortic dissection is a medical emergency requiring immediate treatment. Treatment may include surgery or medications, depending on the area of the aorta involved. Although both type A and type B need medications (both use similar medications), surgical intervention is not always needed for type B as it is needed for type A. For type A, Surgeons remove as much of the dissected aorta as possible and stop blood from leaking into the aortic wall. A synthetic tube (graft) is used to reconstruct the aorta. If the aortic valve leaks because of the damaged aorta, it may be replaced at the same time. The new valve is placed within the graft. For type B, the procedure is similar to that used to correct a type A aortic dissection. Sometimes stents – small wire mesh tubes that act as a sort of scaffolding – may be placed in the aorta to repair complicated type B aortic dissections. After treatment of aortic dissection, medication to control blood pressure for the rest of one's life may need to be taken. Regular CT scans or MRI scans to monitor one's condition may also need to be taken [3].

***Goal***

To comprehensively analyze the incidence, demographic trends, morphological characteristics, and contributing factors of aortic dissections observed in autopsies conducted within the Gomel region during the year 2023.

***Material and methods of research***

A statistical analysis of archival mortality data of 23 patients with aortic dissections in the Gomel region for the year 2023 was conducted. Aneurysms were classified according to the DeBakey and Stanford classifications. Descriptive statistics were utilized to summarize the distribution of cases.

The DeBakey classification categorizes aortic aneurysms based on the extent of involvement of the aorta. Type I involves the ascending aorta, arch, and descending aorta; Type II involves only the ascending aorta; and Type III involves only the descending aorta. In our study, Type III was the most prevalent DeBakey classification, indicating a higher proportion of cases confined to the descending aorta.

On the other hand, the Stanford classification system divides aortic aneurysms based on the presence (Type A) or absence (Type B) of involvement of the ascending aorta. Type A involves the ascending aorta regardless of the extent, while Type B does not involve the ascending aorta. Our findings revealed a relatively equal distribution between Type A and Type B cases, indicating a notable presence of cases without involvement of the ascending aorta.

***The results of the research and their discussion***

A total of 23 cases of aortic dissection were identified through autopsy records in the Gomel region during the year 2023. Among these cases, 13 (56.5%) were male and 10 (43.5%) were female.

The age distribution of the individuals with aortic dissection ranged from 46 to 77 years, with a mean age of 58.3 years. The most common age at presentation was 52 years, with three cases, followed by 48 and 66 years, each with two cases.

The findings of this study underscore several noteworthy observations regarding aortic dissection within the Gomel region during the specified timeframe. Firstly, the predominance of male cases aligns with existing literature indicating a higher incidence of aortic dissection among males compared to females. This gender disparity may be attributed to various factors including hormonal influences, genetic predisposition, and lifestyle factors.

The age distribution of individuals with aortic dissection in our study reflects a broad range, spanning from middle-aged to elderly individuals. While advancing age is recognized as a significant risk factor for aortic dissection, the occurrence of cases across diverse age groups highlights the importance of vigilance and prompt recognition of symptoms regardless of age.

The statistics regarding the 23 cases of aortic dissection classified according to the DeBakey and Stanford classification systems:

The analysis of aortic aneurysm cases based on both the DeBakey and Stanford classifications yielded insightful results. Among the 23 cases studied, the DeBakey classification revealed a predominant occurrence of Type III cases, constituting 65.2% of the total cases, followed by Type I with 30.4%. Notably, Type II cases were relatively rare, comprising only 4.4% of the cohort. Conversely, the Stanford classification showcased a more balanced distribution, with Type A and Type B cases each representing 34.8% and 65.2% of the total, respectively.

***Conclusion***

The relatively small sample size of 23 cases limits the generalizability of our findings to the broader population of the Gomel region. Additionally, the retrospective nature of the study may introduce inherent biases such as selection bias and incomplete data.

Our analysis of aortic aneurysm cases utilizing the DeBakey and Stanford classifications reveals distinctive patterns of anatomical involvement and highlights the significance of accurate classification in guiding clinical management. The prevalence of Type III (DeBakey) cases emphasizes the importance of recognizing and addressing pathology confined to the descending aorta. Conversely, the balanced distribution between Type A and Type B (Stanford) cases underscores the necessity of delineating ascending aortic involvement for precise classification and therapeutic decision-making. These findings underscore the heterogeneity of aortic aneurysms and emphasize the importance of comprehensive evaluation to tailor treatment strategies effectively.

Future research endeavors should aim to expand the scope of investigation to encompass larger cohorts and incorporate prospective study designs to validate our findings. Furthermore, a comprehensive exploration of potential risk factors and underlying etiologies contributing to aortic dissection within the region is warranted to inform preventive strategies and optimize clinical management protocols.

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