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DEVELOPMENT FACTORS AND FEATURES OF THE COURSE OF IMMUNE MICROTHROMBOVASCULITIS

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SUMMARY----------
Immune microthrombovasculitis (IMTV) is an immunocoplex vasopathy, the etiology of which is still unknown. The aim of the study was to study the factors of development and features of the clinical course of IMTV in persons of Uzbek nationality living in the Republic of Uzbekistan.

A high incidence of chronic foci of infection and previous acute respiratory infections and acute respiratory viral infections were revealed as a predisposing factor in the development of IMTI. There was a high incidence of IMTT among females and the admission of patients with moderate severity of the disease.

KEY WORDS: ***immune microthrombovasculitis, etiology, causative factors, clinical course, severity.***----------

RELEVANCE

Among various pathologies, diseases of the blood system, namely, diseases of vascular-platelet hemostasis, acquire particular relevance due to an increase in the frequency of occurrence, an aggravation of the course and a high risk of dangerous complications [1, 7]. The causes of disorders of this system are quite diverse, among them a special place is occupied by pathologies of an acquired nature, which are based on immune disorders: immune microthrombovasculitis (IMTV) [6, 8].

IMTV is an immunocomplex vasopathy, characterized by aseptic damage to the endothelium of microvessels by circulating immune complexes (CIC) and manifested by hemorrhagic syndrome [5]. Thep frequency of IMTV is 13-20 per 100 thousand of the adult population [1].

In recent years, there has been a general trend towards an increase in the incidence of IMTV with an increase in their prevalence among adults. There is a tendency to chronicity of the pathological process, an aggravation of the course of diseases occurring with severe disorders in the hemostasis system, leading to serious complications and the development of DIC - blood [3].

Analysis of literature data indicates significant advances in the study of various aspects of this pathology. But despite the fact that the study of IMTV has more than two centuries, to date, many of the causal aspects of its development are not fully understood [2, 4]. Insufficient knowledge of the

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triggering mechanisms of the disease, as well as the inconsistency of research results in this regard, is the main reason for its late diagnosis and not always high effectiveness of the therapy, the result of which, accordingly, is a high frequency of complications and relapses of the disease [9].

The lack of scientific data on the factors provoking the formation of IMTV, the peculiarities of the clinical course and outcome of these pathologies among the population of our Republic indicate the relevance of this study.

OBJECTIVE OF THE STUDY

To study the factors of development and features of the clinical course of IMTV in persons of Uzbek nationality living in the Republic of Uzbekistan.

MATERIAL AND METHODS

Clinical material for the study was 105 persons with IMTV (38 men and 67 women). All patients applied (in the period from 2012-2018) to the consultative polyclinic of the Research Institute of Hematology and Blood Transfusion of the Ministry of Health of the Republic of Uzbekistan (NIIG and PK of the Ministry of Health of the Republic of Uzbekistan), where the corresponding diagnosis was made. At the time of diagnosis, the median age of the patients was 41.8 ± 3.8 years. The IMTV diagnosis was verified based on the modern classification criteria of the European League Against Rheumatism (EULAR), the International Pediatric Rheumatological Organization for Clinical Research (PRINTO) and the European Society of Pediatric Rheumatology (PreS) (2010) [6].

The methods of clinical examination included: a survey, a general examination of patients by organs and systems according to the traditional scheme with details of complaints of a hematological nature.

RESULTS AND ITS DISCUSSION

In the course of the study, the demographic (age and gender) indicators were studied in patients with IMTV, taking into account which some features were revealed (Table 1.).

Table 1.
Distribution of patients with IMTV by sex and age.

Gender of patients with CHP	Age of patients with CHP				
	16-25 years	25-44 years	44-60 years	60-75 years	75-90 years
Male	7	19	7	4	1
Female	16	20	17	13	1
Total(n=105)	23	39	24	17	2

From the data shown in Table 1, it can be seen that IMTV was 1.8 times more often recorded among female patients (64.0%) than among males (36.0%).

Depending on the age category, a large proportion of the surveyed patients (37.0%) was 25-44 years old, and the smallest from 75-90 years old - 1.9%.

During a survey of patients, it was revealed that in 21 (20%) the onset of the disease was preceded by an acute respiratory disease or acute respiratory viral infection 10-15 days before the onset of the disease, and in 4 (3.8%) - vaccination, among 68 (64.8%) patients identified foci of chronic infection (chronic tonsillitis in 38 (36.2%) patients, sinusitis in 13 (12.4%), dental caries in 11 (10.5%), viral hepatitis B in 4 (3.8%) and hepatitis C in 2 (1.9%), in 12 (11.4%) patients, the disease began spontaneously, for no apparent reason (Fig. 1).

From the data shown in Fig. 1, it is obvious that a significant role among the factors predisposing the development of IMTV is most often determined by the presence of foci of chronic infections (64.8%) and previous acute respiratory infections or acute respiratory viral infections (20%).

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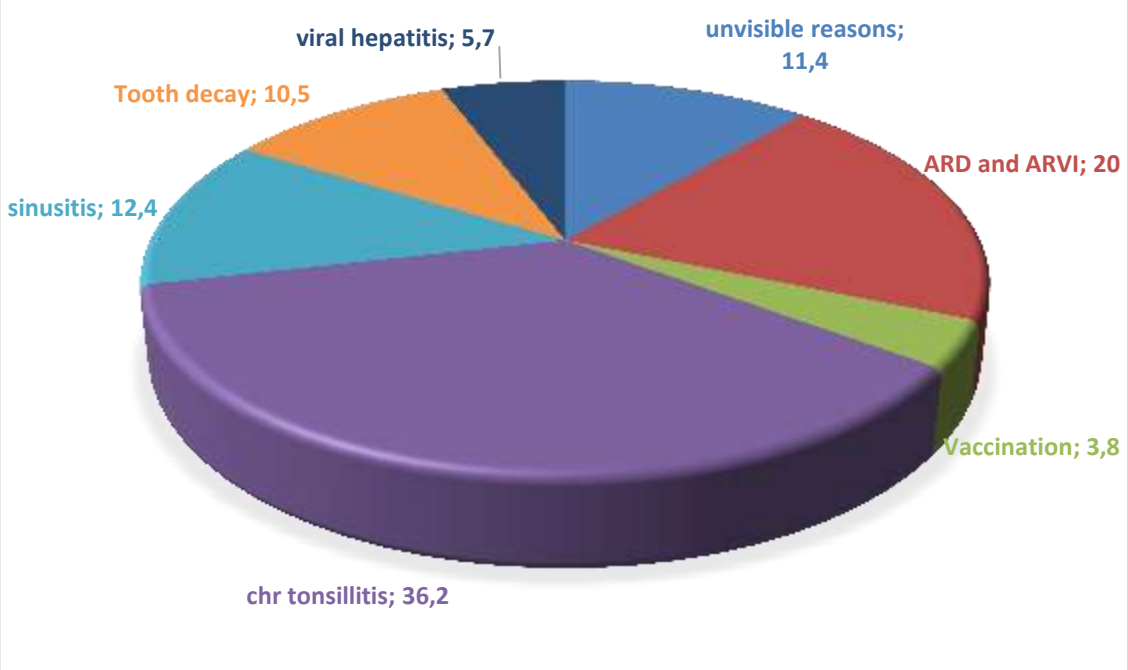

Fig. 1. Factors preceding the development of IMTV

During the clinical examination, clinical manifestations of the disease were revealed in the examined patients with IMTV (n = 105) at the time of the initial visit.

The clinical symptoms of IMTV were characterized by a variety of manifestations (see Table 2).

Table 2
The frequency of clinical manifestations in patients with IMTV (abs,%)

Clinical symptoms	Patients with IMTV (n=105)	
	albs.	%
Skin syndrome		
Symmetrical petechial eruptions on the skin of the lower extremities, of which:	105	100
Hemorrhagic rash of a confluent nature without necrotic elements	25	23,8
Hemorrhagic rash of a confluent nature with necrotic elements	6	5,7
Symmetrical petechial eruptions on the skin of the upper extremities and skin of the abdomen	40	38,1
Petechial eruptions on the skin of the face	16	15,2
Articular syndrome		
Ankle soreness	91	86,7
Swelling in the ankle area	81	77,1
Ankle hyperemia	81	71,1
Soreness and swelling in the knee joints	46	43,8
Hyperemia in the knee joints	25	23,8
Soreness and swelling in the elbow joints	12	11,4
Soreness and swelling in the area of the wrist joints	12	11,4

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Abdominal syndrome		
Abdominal syndrome	5	8,9
Persistent abdominal pain	25	23,8
Nausea	38	36,2
Vomiting and stool disturbance	30	28,6
Signs of gastrointestinal bleeding	11	10,5
Renal syndrome		
Lumbar pain	5	4,8
Hematuria	5	4,8

Thus, the skin syndrome in patients with IMTV was characterized by a symmetrical petechial hemorrhagic rash on the skin of the lower extremities in 105 (100.0%), upper extremities in 40 (38.1%), abdomen in 30 (28.6%), neck and face in 16 (15.2%). At the same time, in 25 (23.8%) patients, the rash on the skin of the lower extremities had a confluent character, of which in 6 (5.7%) patients - with the formation of necrotic changes in the center of the confluent focus.

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Against the background of skin and articular manifestations of the disease, 38 (36.2%) patients had an abdominal syndrome, which manifested itself in 13 (12.4%) patients with periodic and in 25 (23.8%) persistent abdominal pains, nausea in 38 (36.2%), vomiting and stool disorders in 30 (28.6%), signs of internal bleeding in 11 (10.5%).

In 5 (4.8%) patients, along with the above symptoms, the disease proceeded with kidney damage, which was accompanied by pain in the lumbar region and hematuria.

Among 105 patients, IMTV was mild (I) - the severity level was established in 24 (22.9%) patients and was characterized by the presence of not abundant symmetrical petechial rashes on the skin of the lower extremities (100.0%) and pain in the ankle joint (50.0%).). During the objective examination, the general condition of the patients with IMTV was slightly disturbed, they were active. Of 24 (100.0%) patients, 14 (58.3%) were diagnosed with a skin form, and the remaining 10 (41.6%) had a skin-articular form.

The average (II) severity was determined in 56 (53.3%) patients who noted symmetrical abundant hemorrhagic papular rashes on the skin of the lower extremities (100%), petechial rashes of a moderate nature on the skin of the upper extremities and abdomen (26.8%); pain and swelling of the ankle joints (100.0%), their hyperemia (66.1%), pain and swelling of the knee (37.5%) joints; recurrent abdominal pain and nausea (23.2%), vomiting and stool disturbance without signs of internal bleeding (8.9%). Among 56 patients with moderate severity, the skin-articular form was diagnosed in 43 (76.8%) and the skin-articular-abdominal form in 13 (23.2%).

Patients with severe (III) severity were 25 (23.8%), of which 20 (80.0%) were diagnosed with a skin-articular-abdominal form of the disease, and 5 (20.0%) had a skin-articular-abdominal form of the disease. renal form. In 100.0% of cases, there was an abundant papular hemorrhagic rash on the skin of the lower, upper extremities and abdomen. In 16 (64.5%) patients, rashes were also observed on the skin of the neck and face. On the skin of the lower extremities in the area of the legs and feet in 25 (100.0%) patients, the rash had a confluent character, of which 6 (24.5%) patients had necrotic elements in the center of the confluent focus.

The articular syndrome was more pronounced in comparison with the manifestations of mild and moderate severity, and was characterized by soreness, swelling, hyperemia of the ankle and knee joints (100.0%), soreness and swelling of the elbow and wrist joints (48.0%).

The abdominal syndrome was manifested by constant aching and periodic severe cramping pains in the abdomen (100.0%), nausea and vomiting (100.0%). At the same time, 11 (44.0%) patients showed signs of internal bleeding in the form of melena and vomiting with blood. At the same time, 5 (20.0%) patients had aching pains in the lumbar

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region and hematuria, which are manifestations of nephrotic syndrome.

Thus, in patients with IMTV, mild severity was established in 22.9%, average in 53.3% and severe in 23.8% of cases (see Figure 2).

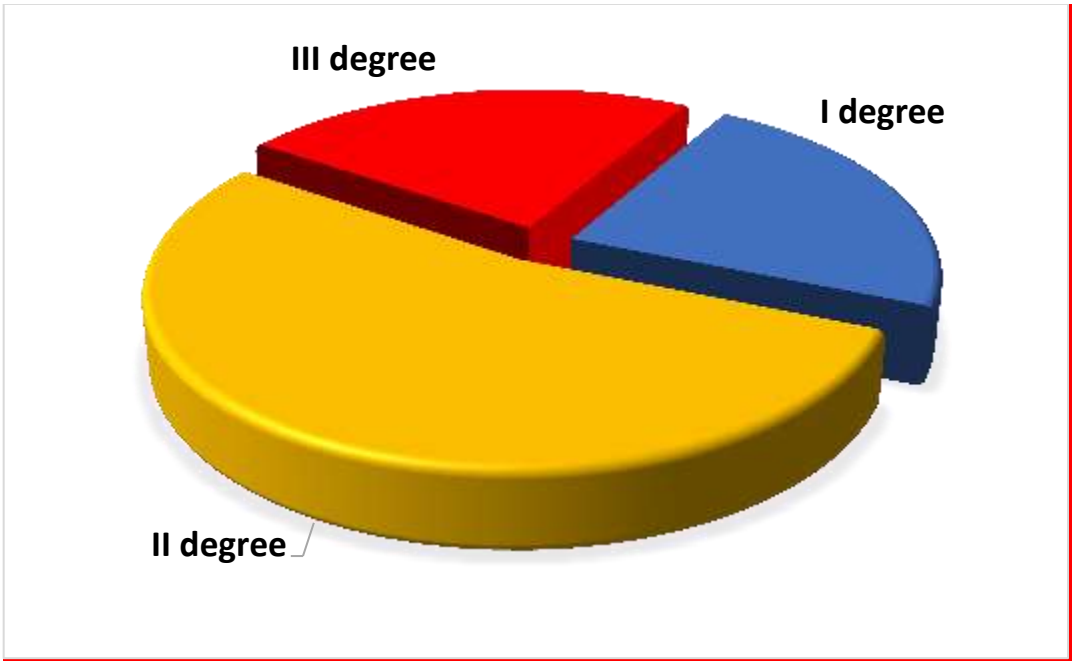

Fig. 2. Distribution of patients with IMTV by severity.

Among all patients with IMTV (105), exacerbation of the disease no more than twice a year was detected in 58 (55.2%), exacerbations three or more times a year in 47 (44.8%) patients.

At the same time, in order to establish clinical predictors of severe course of IMTV, we studied the correlation between the severity of clinical syndromes and the frequency of exacerbation of the disease with the severity of the course of IMTV (r = 52). The studied relationship confirms the important prognostic value of confluent rashes, pronounced articular, abdominal and renal lesions with a severe course (23.8%) of IMTV.

CONCLUSIONS

1. IMTV in Uzbekistan is more often registered among women (64%);
2. In the development of IMTV, the predisposing factors may be such factors as the presence of foci of chronic infection in patients, acute respiratory infections and acute respiratory viral infections, viral hepatitis, vaccination;
3. In 80% of the applied patients, IMTV is diagnosed with moderate severity, with 66.7% of them being the dermal-articular form, and 13.3% of the dermal-articular-abdominal form.

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