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Clinical Manifestations of Hemorrhagic Vasculitis

Nizamutdinov Avazbek
Assistant of ASMI

Abstract: Hemorrhagic vasculitis capillary toxicosis, also called Henoch-Schönlein disease, is an immunocomplex disease. Hemorrhagic vasculitis or Henoch-Schenelein disease is a disease in which autoimmune damage to small arteries occurs - they become fragile, their permeability increases, which leads to microcirculation, microthrombosis, numerous small hemorrhagic rashes on the skin and mucous membranes, and in internal organs. (gastrointestinal tract, kidneys, joints) causes bleeding. This article discusses the clinical manifestations of hemorrhagic vasculitis.

Keywords: Hemorrhagic vasculitis, thrombosis, syndrome, purpura, pathogenic immune complex (IgA).

Introduction

Hemorrhagic vasculitis belongs to the group of immunocomplex diseases. Vasculitis (latsel - drop, the dog means inflammation) means "inflammation of blood vessels". Shenlein wrote about this disease for the first time in 1837. Over the years, information about the disease has increased, but no single conclusion has been reached about the etiology and pathogenesis of the disease. Various names of the disease can be seen in the literature: Shenley-Genox disease, Shenley-Genox syndrome, anaphylactoid purpura, capillarotoxicosis, allergic vasculitis, etc. Nasonova V.A. and Tareeva E.M. According to the proposal of 1959, this disease was called hemorrhagic vasculitis. According to the international statistical classification, the disease is called hemorrhagic purpura. The disease is seasonal, and the incidence increases in cold and wet times of the year. The etiology of the disease is still unclear.

Epidemiology.

Hemorrhagic vasculitis is one of the most common systemic vasculitis and can occur at any age, but mostly in children under 16 years of age. The frequency of hemorrhagic vasculitis varies considerably in different geographical areas. Thus, in children under 17 years of age, it occurs in 6,270.3 cases per 100,000 population per year, with a slight predominance in men (1.22 times). The highest rate of the disease in children corresponds to the age of 46 (more than 90% of the disease is observed before the age of 10).

The frequency of hemorrhagic vasculitis in adults (persons over 16 years old) is significantly lower and is 0.813 cases per 100,000 population per year. The causes of the disease remain unknown. The incidence is 23-25 per 10,000 people. It mostly affects boys between the ages of 7-12.

The main factors in the development of vasculitis are:

1. viral and bacterial infections,
2. chronic infections,

3. allergic reaction to food or medicine,
4. vaccines.

The indicated reasons cause malfunction of the immune system, which starts the production of pathogenic immune complexes (IgA) affecting the inner lining of small vessels and contributes to the development of inflammation and microthrombosis.

Also, factors predisposing to the disease include: 1) allergic mood of the body; 2) acute streptococcal disease, ORVI or the presence of chronic foci, often, streptococcal infections (dental caries, sinusitis, tonsillitis, adenoiditis) and others can be included. The combination of these two factors creates a high risk of developing hemorrhagic vasculitis. It is said that the development of the disease on the body is often due to some negative effects. This "allowing factor" can be preventive vaccinations, administration of immunoglobulins, taking medications, eating certain foods, insect bites, hypothermia, physical and emotional overload, etc.

In the course of the development of hemorrhagic vasculitis, the following were found to be important: 1) immune complex mechanism; 2) delayed type hypersensitivity (Arthus phenomenon); 3) autoimmune mechanism; 4) paraallergic mechanism. Many researchers believe that because hemorrhagic vasculitis is an immunocomplex disease, it affects microvessels, and as a result, due to the harmful effects of low molecular weight circulating immune complexes (CIC) and activated components of the complement system, it is aseptic with the formation of walls, thrombosis and extravasates. said that inflammation is formed.

Symptoms of hemorrhagic vasculitis

There are several forms of hemorrhagic vasculitis:

- Characterized by the appearance of a characteristic pruritic rash on the skin or normal lower extremities and buttocks (small obvious hemorrhages that are raised on the skin and do not disappear with pressure). Over time, the red rash darkens and disappears, leaving areas of increased pigmentation.
- Joints: patients complain of pain, swelling and dysfunction in the area of large joints (knee, elbow, hip).
- Abdominal nausea and vomiting, severe abdominal pain (often cramping), possible intestinal bleeding, development of intestinal gangrene (due to thrombosis).
- Kidney: due to the mixture of red blood cells, the urine becomes pink or red in color, its amount decreases, protein appears in the tests, which are signs of the development of glomerulonephritis and the risk of developing chronic kidney failure increases.
- Fulminant: Characterized by development of DIC syndrome and high blood loss.

Also, clinical manifestations include damage to the skin, joints, peripheral nerves, intestines and kidneys. Fever and weight loss are common. In children, there are 2 forms - cutaneous and systemic. For the first, injuries in the form of various rashes are characteristic, often with hemorrhagic, necrosis, atrophy and even gangrene. In the second form, pain in the abdomen and limbs is noted; in addition to the skin, internal organs are also affected: kidneys (hematuric form of glomerulonephritis with hypertension), heart (myocarditis), gastrointestinal tract (possible ulcers). intestinal bleeding). There are obvious inflammatory changes in the blood: leukocytosis, increased ESR, normochromic anemia, and an increased CRH indicator.

The disease usually has an acute onset. This usually occurs 2-3 weeks after an acute respiratory infection. The first symptom is skin spots - purpura. Then joint pain and abdominal (stomach-related) syndrome appear, followed by the kidney. In most cases, there is fever, weakness, poor appetite, weight loss. The disease can occur in a chronic form with periodic recurrence.

Skin syndrome. Purpura is usually a cutaneous manifestation of hemorrhagic vasculitis. Available in all patients. Sharp bubbles appear on the skin, 1 to 5 mm in size. The element usually protrudes from the surface of the skin and does not disappear when pressed. Most often, it is formed on the legs (back of the foot, ankle joints, lower third of the legs, thighs, buttocks), as well as on the extensor surfaces of the hands. It is less common on the face, back, stomach and chest. After a few days, the spots become colorless and have a brown shade that creates pigmentation. The rash does not disappear with pressure, its color is pink to dark red, it can be hemorrhagic, in severe cases it can be bullous, leaving pigmentation (hemosiderosis), combining with necrosis and ulceration.

Joint syndrome occurs in 47% of cases. It is characterized by arthralgia of a volatile nature, as well as swelling of the joints. Painful contractures may develop. Large joints are involved in the process.

Abdominal syndrome is observed in half of patients with hemorrhagic vasculitis, sometimes before the appearance of skin syndrome, which complicates the diagnosis. Abdominal pain of varying intensity is constant, sometimes accompanied by vomiting and constipation. In some cases, acute toxicosis develops. Bleeding in the mesentery and peritoneum can be observed, vascular thrombosis, necrosis of the rash elements with surgical complications - the development of intussusception, intestinal obstruction, peritonitis, necrosis of the intestinal part or its perforation are also possible. In this case, fever, leukocytosis in the blood with severe bleeding - collapse is observed. These surgical complications require timely surgical control and surgical assistance. Rare complications include hemorrhagic pancreatitis.

Nephrotic syndrome is often accompanied by abdominal syndrome and occurs mainly 1-3 weeks after the onset of the disease. Renal syndrome accounts for 45.1-47.5% of patients. This is the most serious form of hemorrhagic vasculitis, which determines the chronicity of the process and the long-term prognosis. Most often, kidney syndrome is observed in boys aged 4-7 years and in spring and summer. It should be noted that, according to the children's clinic of the Siberian State Medical Institute, the peak of the syndrome occurs at the age of 4-5 years, which is clearly the specific characteristics of the metabolism of the viral-microbial association related to most cases, kidney damage develops in the 2-4th week of the disease. The most common manifestation of the syndrome is hematuria. Nephrotic and nephritic forms are less common. The duration of the process varies - from several weeks to several years, and transition to chronic glomerulonephritis occurs in 21-50% of cases. Hematuria with hepatitis B is characterized by torpidity for treatment, but symptoms of kidney failure rarely appear. Fibroplastic transformation and tubulointerstitial component are less common. there is a form characteristic of hemorrhagic vasculitis - this is subacute malignant glomerulonephritis, which forms chronic kidney failure within a few months and then leads to death.

Material and methods.

According to a number of researchers, in the last decade, hemorrhagic vasculitis is characterized by a severe, frequently recurring course, changes in the clinical variants of the disease, and frequent involvement of the kidneys in the pathological process.

50 nursing children were taken under observation. 27 (56%) of them are boys and 23 (46%) are girls. 2 children under 3 years old (the youngest child is 2 years and 3 months old), 12 children from 3 to 6 years old, 21 children from 7 to 10 years old, 17 children from 11 to 14 years old. Depending on the clinical forms of hemorrhagic vasculitis, children were divided into 4 groups: group 1 (n=14) - with skin form; Group 2 (n=11) - with a skin-joint form; Group 3 (n=13) – with skin-abdominal form; Group 4 (n=12) – with skin-kidney form. The control group consisted of 30 healthy children of the same age.

According to the severity of the disease, 16 (32%) patients had severe disease, 21 (42%) moderate and 13 (26%) mild disease. According to the course of the disease: 33 (66%) patients

had an acute course up to 2 months, 13 (26%) had a prolonged course (up to 6 months), chronic recurrent course (more). 6 months - 4 (8%) sick.

At the onset of the disease, in 14% of cases, the temperature increased to 37.6°C - 38°C, in 67% of cases, there was a decrease in appetite, in 34% of cases, vomiting, in 28% of children. changes were observed in the stool.

A comprehensive examination includes a thorough general clinical examination, general blood test, biochemical blood test, general analysis of urine and feces, coagulogram, ultrasound examination of internal organs and retroperitoneal space, study of the immune status of peripheral blood from the point of view of cellular and humoral immunity. Determination of lgA, M, G according to Machini, T and B lymphocytes according to Mendes and enzyme-linked immunosorbent assay (ELISA). If necessary, experts were consulted.

Results and discussion.

In all patients of the first group, skin manifestations were noted at one stage or another of the disease. Most often, on the lower extremities, extensor clear bright red hemorrhagic or papular-petechial rashes with a symmetrical location, sometimes with hives, were observed mainly on the surfaces.

At the beginning of the disease, all the elements of the rash were of the same size and shape (small pointed red rashes on the skin), they did not disappear with pressure, but their color intensity decreased. In more severe cases, the rash became generalized and spread from the waist to the lower parts of the body, tending to merge with the rash elements.

Conclusion.

In summary, hemorrhagic vasculitis is thought to be caused by most streptococcal infections. In other literature, 81.7% of patients with hemorrhagic vasculitis were infected with cytomegalovirus and chlamydia, 18.5% with type 1-2 herpes virus, and 7.1% with toxoplasmosis. Hemorrhagic vasculitis can be caused by frostbite, prolonged exposure to sunlight, allergies to food, medicine, cold, foci of chronic infection, injuries, etc. In many cases, the cause of the disease cannot be determined. Hypercoagulation syndrome develops with depression of the fibrinolytic system. Aseptic inflammation, destruction, thrombosis of microvessels and rupture of capillaries occur in the vascular wall, which is accompanied by a hemorrhagic syndrome.

References.

1. К.И. Исмаилов, Ф.А. Мухаммаднабиева “ Клинико-иммунологические особенности течения геморрагического васкулита у детей” Научно-медицинский журнал «вестник авиценны» №1, январь-март 2013 г.
2. Балашева И.И., Маевская З.А., Гербек И.Э., Бочарова М.Н. Геморрагический васкулит*:* Учебно- методическое пособие. -Томск, -2003. – 19 с.
3. Кувшинников, В. А. Геморрагический васкулит у детей : учеб.-метод. Пособие / В. А. Кувшинников, С. Г. Шенец. – Минск : БГМУ, 2014. – 31 с.
4. О.Н. Мацук, Е.Г. Асирян, О.В. Матющенко, Н.Ф. Нищаева, В.Н. Ольховикова, Е.В. Барановская Пурпура шенлейн–геноха у детей и подростков витебского региона
5. Борисова Е.В. К патогенезу геморрагического ва- скулита у детей / Е.В. Борисова, Л.М.Казакова, А.В.Шабальдин // Педиатрия. - 2008.–№2. – С 94–98
6. Henoch-Schoenleinsyndromeinchildren: experiencefrom southern part of Saudi Arabia / N.N Harbi // East afr. Med. – 2011.- Vol.73. №3. – P. 191–193