Tsai A.V.

ECZEMA IN COMBINATION WITH DIPHYLLOBOTHRIASIS IN A REPRESENTATIVE OF ONE OF THE INDIGENOUS PEOPLES OF THE NORTH

DOI 10.25789/YMJ.2019.65.33

ABSTRACT

The article presents a clinical case of eczema in a representative of one of the indigenous peoples of the North - the Selkup. The disease is associated with professional activity - the collection of wild plants.

The Selkup live in Western Siberia in Krasnoselkupsky district (Russia). They are engaged in reindeer herding, fishing, hunting, gathering and processing of wild plants. Due to the small number and remoteness of their settlements, this ethnic group has not been sufficiently studied. Eczema makes 22% of all skin diseases and other allergic dermatoses in the Selkup population. The incidence of dermatoses in the peoples of the North is closely related to their lifestyle, traditional crafts (reindeer breeding, fishing, gathering of wild-growing plants), as well as impact of adverse climatic factors, and the influence of industrial enterprises on the fragile nature of the North.

The Selkup as typical representatives of the indigenous peoples of the North, leading a traditional way of life are constantly exposed to the adverse effects of the external environment, as well as other health hazards of their professional activity. It is known that eczema is often found in fishermen, reindeer herders and collectors of wild plants.

In the presented clinical case, the patient has a direct link between the exposure to the allergen, in this case, the wild rosemary plant, and the appearance of an allergic reaction in the form of eczema of the right hand and concurrent diphyllobothriasis.

Keywords: Selkup, eczema, diphyllobothriasis, occupational diseases.

Eczema as an allergic reaction of a delayed type is often the result of prolonged contact with various allergens, including professional ones [1].

Health of the North indigenous peoples in recent years is becoming increasingly important due to the significant increase in the development of natural resources in the Arctic and subarctic regions of the country.

The dermatoses' morbidity of the North peoples is closely related to their lifestyle, traditional crafts (reindeer breeding, fishing, gathering of wild plants), the impact of adverse climatic factors, and the influence of industrial enterprises on the fragile nature of the North. Attempts to change the traditional way of life of aboriginal people by resettling them in cities and towns led to an increase in alcoholism, obesity and other burden of urbanization. Of particular importance are the climatic conditions [3].

The factors determining the characteristic features of the climate of Yamal are the long periods of the polar day and the polar night, which form the features of environmental management in the region, as well as affect the radiation balance and its components. The duration of light days increases the influx of total annual solar radiation [3].

Along with the problem of anthropogenic and technogenic pollution of the environment, most of the regions of the North also have the problem of the wide distribution of various biogeochemical anomalies, among which the leading place belongs to the natural iodine deficiency and widespread iodine deficiency diseases [3].

The Selkup live in Western Siberia in Krasnoselkupsky district. They are engaged in reindeer herding, fishing, hunting, gathering and processing of wild plants. Due to the small number and remoteness of their settlements, this ethnic group has not been sufficiently studied. Eczema makes 22% of all skin diseases and other allergic dermatoses in Selkups population [3].

The Selkup as typical representatives of the indigenous peoples of the North, leading a traditional way of life, are constantly exposed to the adverse effects of the external environment, as well as other health hazards of their professional activity. It is known that eczema is often found in fishermen, reindeer herders, and collectors of wild plants [2]. We present a case of eczema in Selkup, which was caused by exposition to various environmental factors as well as diphyllobothriasis.

Patient K., 69 years old, male, presented to consultation room with complaints of an itchy rash on his hands, frequent headaches, shortness of breath on exertion, cough with mucous sputum, chest pain, belching, abdominal pain, mainly in the epigastric region and general weakness. The patient was admitted to therapeutic department of the Tarko-Salinsky Central Regional Hospital for further evaluation and treatment. K. was born in Krasnoselkupsky District and he lived for 25 years in a chum (in Siberia and in the northeast of the European part of Russia: a portable dwelling in the form of a tent of conical shape, covered with skins, bark, felt, etc.). He was a reindeer herder, a collector of wild medicinal plants (wild rosemary, lingonberry, etc.). Patient's history was remarkable for scabies which was treated with home remedies, pyoderma (probably caused by a dirty sewing needle) which was assessed and managed by shaman. Reindeers were present at patient's environment. Patient's home was infested by cockroaches and bedbugs. He had allergic reactions to bedbug bites periodically.

At the time of presentation, patient lived in a comfortable apartment in Krasnoselkup, unemployed. Patient is married and has 8 children living in the city of Tarko-Sale. Hereditary history - parents suffered from cardiovascular pathology and chronic obstructive pulmonary disease (COPD). He denies surgery, injuries. First symptoms of eczema appeared more than 10 years ago, when patient noted rash on the hands during collection and processing of wild rosemary. Patient visited shaman for the treatment of these symptoms. .

In 2014, patient visited an epidemiologist who put the diagnosis of diphyllobothriasis, chronic phase. Additionally patient had severe COPD, bronchectatic disease, respiratory failure, 2 degree, chronic cholecystitis and pancreatitis in remission. Following recommendations were given – strict adherence to diet, choleretic herbs, hofitol 1 tablet tid for 14 days, vitamins, observation by an infectious disease specialist at the place of residence.

Physical examination: The general

condition of patient is satisfactory, patient is alert and responsive. Pharynx is calm. Visible mucous membranes are clean. Peripheral lymph nodes are not enlarged. Osteo-muscular features are unremarkable. The chest is symmetrical, both halves are involved in breathing. Percussion sound over lungs is pulmonary. Harsh breathing on both sides, isolated dry rales. Respiratory rate is 19 per min. Heart sounds are muffled and rhythmic. Heart rate is 68 per min. BP 160/90 mmHg. Tongue appears wet, clean. The abdomen is flat involved in breathing and not tender or rigid. Liver is at the edge of the ribcage. The spleen is not enlarged. Bowel movement is regular. No costavertebral angle tenderness. Urination is regular and painless. Peripheral edema is absent.

Skin is of physiological coloration, hydration and tissue turgor are normal. Eczema was asymmetric involving only right hand. It was presented by pathological elements in the form of a papule-vesicular elements, pink in color, with serous content, and weeping with moderate erythema; focal, large-peeling white flakes located on the back of the right hand.

Laboratory data: complete blood count on July 16, 2014 - RBC 4.87, hemoglobin 132 g/l, platelets 301*10/l, WBC .4810/l, eosinophils 1%, nuclear neutrophils 1%, segmented neutrophils 56 %, lymphocytes 37%, monocytes 5%, ESR 8 mm/h. Biochemical analysis of blood on 10.07.2014: prothrombin index 88%, AST 23 U/l, ALT 17 U/l, bilirubin 10.6 μm/l, creatinine 59 μm/l, cholesterol 4.4 mm/l, total protein 78 g/l, sugar 4.2 mm/l. Urinalysis on July 16, 2014 color is yellow, specific gravity is 1010, pH 5.5, transparent, glucose negative, protein negative, leukocytes are 0-1 in sight, few epithelium in sight. Helmnitoses on 07/16/2014: not found. Syphilis on 07/16/14 - negative. Microscopy of skin scales for pathogenic fungi – negative on 3 samples.

Echocardiography on 07/30/2014: Echo-signs of aortic atherosclerosis. Dilatation of the left ventricle. Left ventricular hypertrophy. Mild atrioventricular valvular insufficiency. Atrial septum aneurysm, type A (without PFO).

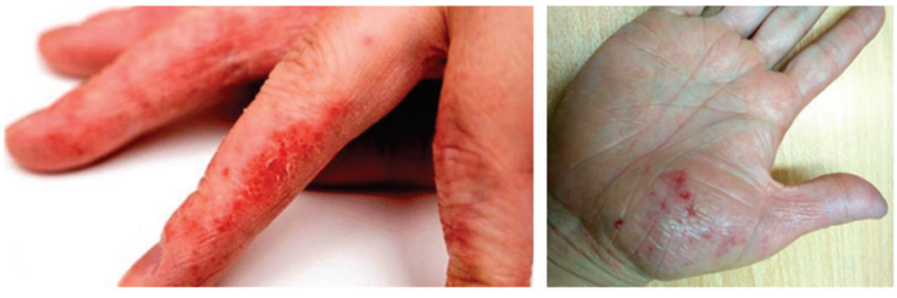

Fig. 1 (a, b). Patient, 69 y.o. Eczema of the hands.

Abdominal ultrasound scan on 07/03/2014 - The size and structure of the liver is not changed. Slight torsion of gallbladder neck. Increased echogenicity of pancreatic tissue. Suspected small calculus in the left kidney.

Based on complaints, medical history and physical examination, a diagnosis was made: Ischemic heart disease. Angina pectoris, functional class (FC) 2. Arterial hypertension III, cardiovascular risk category 4. Chronic pulmonary heart. Chronic heart failure 1. FC 2. Severe COPD, stage of incomplete remission. Left-sided bronchiectasis, respiratory failure 2nd degree. Chronic cholecystitis, pancreatitis, in remission. Diphyllobothriasis, chronic phase. Eczema of the right hand (Fig.1, a, b).

Treatment: infusion therapy, a polarizing mixture, heparin, aminophylline, amlodipine, levofloxacin, spironolactone, indapamide, aspirine, vitamin therapy, inhalation of ipratropium bromide and fenoterol mixture (Berodual®), suprastin, locally compounded ointment of betamethasone, gentamicin and clotrimazole (Akriderm GK®) bid, application of Fucorcin® 2 times a day with a positive effect.

Patient was discharged with recommendation of observation of a district therapist, a dermatologist, an infectious disease specialist, avoidance of contact with the plant (wild rosemary), to continue taking Indapamide 2.5 mg in the morning, Amlodipine 5 mg 1 tablet 2 times a day continuously.

Conclusion. Thus, in this patient, having a history of diphyllobothriasis in the chronic phase, a direct link was found between the influence of the allergen, in this case the wild rosemary plant, and the appearance of an allergic reaction in the form of eczema of the right hand.

References

1. Rusak Yu.Eh. Efanova E.N. Professional'nye zabolevaniya kozhi u rabotnikov neftyanoj i gazovoj promyshlennosti: ucheb. posobie [Occupational skin diseases in oil and gas industry workers: manual]. Surgut. Gos. un-t. [SurSU]. Surgut, 2017, 28 p.

2. Somov B.A. Dolgov A.P. Professional'nye zabolevaniya kozhi v vedushchih otraslyah narodnogo hozyajstva [Occupational skin diseases in leading sectors of the national economy]. Moscow, 1976, 383 p.

3. Tsai A.V. Efanova E.N. Rusak Yu.Eh. Problemy zdravoohraneniya sel'kupov – odnogo iz malochislennyh narodov Severa [Health problems of the Selkup - one of the indigenous peoples of the North] Materialy II Vserossijskoj nauchno-prakticheskoj konferencii «Sever Rossii: strategii i perspektivy razvitiya» [Materials and All-Russian scientific-practical conference "North of Russia: strategies and development prospects"]. Surgut, 2016, p.241-244.

The author

Anna Vladimirovna Tsai - graduate student of the Department of Infectious, Skin and Venereal Diseases of the Medical Institute Surgut State University.

Address: 628412, Lenin Ave., 1, Surgut, Khanty-Mansiysk Autonomous Okrug-Ugra. E-mail: nyuta.tsay@mail.ru.