

Personal Experiences of the Psoriasis and its Relation to the Stressful Life Events

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ABSTRACT

Psoriasis is a disease with a profound impact on the psychological and social aspects of the patient, particularly because of its visibility. Quality of life is impaired and different mental health disorders like depression, anxiety, alcoholism, posttraumatic stress disorder (PTSD) are found among persons suffering from psoriasis. Studies have shown the influence of stressful life events on onset, exacerbation and relapse of psoriasis. Rare studies explored prevalence of psoriasis during war times and relations between psoriasis and war provoked PTSD. Psoriasis is a disease with multiple possible causes and additional caution is necessary among medical professional to recognize all contributing factors. This report describes a case of a person whose first episode of psoriasis appeared six months after engaging in combat activities. He is diagnosed with psoriasis vulgaris, psoriatic arthritis and permanent personality changes after the traumatic experiences caused by war participation. His occupational history is burdened with additional causal factors; work with heavy metals and metal dusts. Cumulative effects of different aetiological factors can contribute to psoriasis with intensive trauma induced stressors serving as a trigger. His medical history indicates cognitive difficulties typical for early dementia which makes this case even more interesting. Research results suggesting common aetiology of psoriasis, autoimmune diseases and neurodegenerative diseases, indicate a need, as in the case of our patient, for multidisciplinary approach to studying aetiology of psoriasis.

Key words: psoriasis, war trauma, post-traumatic stress disorder, neurodegenerative diseases, occupational risk factors

Introduction

Psoriasis is a disease with profound impact on the psychological and social aspects of the patient, particularly because of its visibility. It can affect daily and work routines, leisure activities and interpersonal relationships. It can result in a feeling of stigmatization, degradation and altered body images. Quality of life is impaired¹ and different mental health disorders like depression, anxiety, alcoholism, posttraumatic stress disorder (PTSD) are found among persons suffering from psoriasis².

Studies have shown the influence of stressful life events on onset, exacerbation and relapse of psoriasis^{3–12}. Psychological stress is associated with increased oxidant production, oxidative stress and oxidative damage and thus can increase the risk of many diseases^{13,14}. Patholog-

ical roles of oxidative stress in autoimmune diseases have been proven¹⁵.

Authors found that psoriatic patients obtain the highest PTSD scores in the group of dermatology inpatients and report more severe traumatic events¹⁶. Biljan et al found that 17.8% of psoriatic patients met criteria for PTSD². Common aetiologies between psoriasis and PTSD are found in alterations of the hypothalamic–pituitary–adrenal axis function¹⁷.

Rare studies are published concerning changes in the prevalence of psoriasis during war times, yet those published are suggesting higher prevalence during war time in comparison to pre-war time⁸. In population of soldiers active during war and civilians living in the areas exposed to war activities extremely high correlations are

found between stress levels and severity of psoriasis measured by objective measures⁹. Some authors found very high percentages of persons claiming war trauma as a trigger of their psoriasis¹⁰.

Few connections between psoriasis, posttraumatic stress disorder and dementia are found. Authors found that veterans with posttraumatic stress disorder are nearly twice as likely to develop dementia as their peers without PTSD¹⁸. Common aetiologies between psoriasis and neurodegenerative diseases are arising. Elevated levels of tumor necrosis factor alpha, a cytokine involved in systemic inflammation, are found both in psoriasis and Alzheimer's disease. Etanercept, tumor necrosis factor alpha antagonist, causes improvements in psoriasis as well in Alzheimer's disease^{11,12}. Oxidative stress and damage are found as contributing factors to both, autoimmune disorders¹⁵ and neurodegenerative diseases, Alzheimer's disease and Parkinson's disease¹⁹.

Case Report

Male patient, 54 years old, is diagnosed with psoriasis vulgaris, psoriatic arthritis and permanent personality changes after the traumatic experiences caused by war participation. He noticed psoriatic skin changes for the first time in 1991, 5–7 months after engaging in Homeland war. After 15 months of war participation, he withdraws because of the illness (psoriasis). He claimed no signs of psoriasis before war participation. No prior family history of psoriasis is known to him, except his mother said »her uncle maybe had similar skin changes«.

His medical history examination showed beside psoriasis vulgaris and psoriatic arthritis, gastrointestinal disorders (frequent and painful urination, abdominal pain – colon polyps), intense headaches and herpes zoster.

Examination of his mental health history revealed following difficulties: sleeping difficulties, nightmares, suicidal ideations, mood disorders (depression and anxiety). Difficulties of social adaptation are also present. He isn't married, has no offspring. Thinks psoriasis considerably limited him in the area of romantic relationships. He talks about these interpersonal difficulties hardly and is ashamed. In the last relationship, partner couldn't accept his illness and cope with it and this was the reason for separation. In the area of psychosocial impact of psoriasis, he reports still present difficulties in avoiding situation in which other people can see his affected skin and previously encountered opinions of his skin changes being contagious and a sign of AIDS.

Mini mental state examination (MMSE) indicated signs of early dementia. The most prominent are memory losses, difficulties in attention and concentration, weekend verbal fluency.

He worked in the conditions contraindicative for persons with skin diseases or predispositions for the same. He was employed for 25 years (19 years prior to war engagement and 6 after the war disengagement) in Croatian iron and steel production plant in Sisak as chemical tester. During his work history he was exposed to iron, lead, zinc, acids, high temperatures, metal dusts. He had few skin traumas: pouring of the zinc on the face area, acid burns.

Discussion and Conclusion

Psoriasis has multiple possible causes and this can lead to problems in recognising all causal factors. In a presented case, patient's history was burdened with several aetiological factors. Stress induced by traumatic war experiences and unfavourable work conditions could both contribute to the onset of psoriasis. Metal induced – toxicity could have role in predisposing this person to psoriasis. Heavy metals (iron, copper) stimulate production of reactive oxygen species and results in oxidative stress and oxidative damage (damaging lipids, proteins, enzymes, cells or even cellular DNA)^{19,20}. Oxidative stress affects all cells of the organism, but specially those of the regulatory systems. Thus the nervous, endocrine and immune system (psoriasis is immune-mediated, inflammatory condition) would show the greatest oxidative damage. The fact that first symptoms of the psoriasis appeared after the war engagement, suggests that war traumas could be a triggering moment. Cumulative effects of different aetiological factors can contribute to psoriasis with intensive trauma induced stressors serving as a trigger. This case report indicates that additional caution is necessary among medical professional to recognize all factors contributing to the onset of psoriasis. Neglecting some of the causal factors can influence the quality of the treatment and course of the illness.

Amounting research results suggesting common aetiology of psoriasis, autoimmune diseases and neurodegenerative diseases^{11,12}, warn medical professionals to carefully screen persons affected by psoriasis for signs of neurodegenerative disorders. Our patient shows symptoms of both, psoriasis and early dementia. Studies of prevalence of neurodegenerative disorders among persons affected by psoriasis would be of interest.

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OSOBNI DOŽIVLJAJI PSORIJAZE I NJENA POVEZANOST SA STRESNIM ŽIVOTNIM DOGAĐAJIMA

S A Ž E T A K

Psorijaza je bolest koja značajno utječe na psihološke i socijalne aspekte života pojedinca, osobito zbog narušavanja vanjskog izgleda. Kvaliteta života je narušen i različiti mentalni poremećaji poput depresije, anksioznosti, alkoholizma, postraumatskog stresnog poremećaja (PTSP) su prisutni kod osoba oboljelih od psorijaze. Studije su pokazale utjecaj stresnih životnih događaja na početak, pogoršanje i povlačenje psorijaze. Rijetka su istraživanja ispitivala zastupljenost psorijaze tijekom ratnih vremena i povezanost psorijaze i ratom uzrokovanog PTSP-a. Psorijaza je bolest sa višestrukim uzročnim faktorima i dodatan oprez je nužan među medicinskim stručnjacima da bi se prepoznali svi doprinoseći uzroci. Opisan je slučaj pojedinca čija se prva epizoda psorijaze pojavila šest mjeseci nakon uključivanja u borbeno djelovanje. Dijagnosticirane su mu: psorijaza vulgaris, psorijatični artritis i trajne promjene osobnosti nakon katastrofalnih doživljaja uvjetovane sudjelovanjem u ratu. U njegovoj radnoj povijesti prisutni su i dodatni etiološki faktori, rad sa teškim metalima i metalnim prašinama. Kumulativni utjecaj različitih etioloških faktora može pridonijeti pojavi psorijaze pri čemu intenzivni traumatski stresori mogu imati ulogu okidača kao kod našeg pacijenta. Kod pacijenta su prisutne kognitivne promjene tipične za ranu demenciju, što dodatno ovaj slučaj čini zanimljivim. Istraživanja ukazuju na zajedničku etiologiju psorijaze, autoimunih bolesti i neurodegenerativnih bolesti, te upućuju medicinske stručnjake kao i u našem prikazu slučaja da je potrebno multidisciplinarno pristupiti istraživanju etioloških faktora kod pacijenata oboljelih od psorijaze.