Psychiatry and Behavioral Sciences 2020;10(3):164-167

Doi: 10.5455/PBS.20180515083615

CASE REPORT

Skin Picking Disorder in Childhood: Report of an Early-Onset Case

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Abstract

Herein we present a 2 year-old girl with skin picking disorder and well responded to antipsychotic treatment. Skin picking behaviors were almost completely subsided under treatment. Our patient was too young that prohibits starting most of antipsychotic drugs. There are several case reports and survey studies about skin picking behavior. Our case contributes to the literature in terms of early age of onset and well respond to risperidone treatment in skin picking disorder. We think that our case would give an idea in the treatment of early onset skin picking disorders.

Keywords: Skin Picking Disorder, Childhood, Antipsychotic Medication

INTRODUCTION

Skin picking disorder (SPD) is characterized with repeated urges to pick at the patient's own skin, often to the extent that skin damage is caused, although he/she does not have any dermatological problem (1). Age of onset shows a wide range of variability and is more common among girls (2). The prevalence is reported between 1.4 to 5.4% (3). Long-term outcome of psychogenic skin picking disorder is not known exactly. People spend a lot of time to skin picking, they can sometimes spend several hours a day (4).

Previous studies about skin picking disorder suggest that the age of onset may vary from childhood or adolescence to adulthood (5). Emotional reactivity and emotion regulation difficulties have been suggested to trigger the picking behavior (6). Picking behavior usually begins involuntary but it usually becomes conscious when they pay attention to the picking or when the picking regions bleed (7).

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Citation: Yuksel T, Sizer E. Qureshi SF. Skin Picking Disorder in Childhood: Report of an Early-Onset Case. Psychiatry and Behavioral Sciences 2020; 10(3):164-167.
Doi: 10.5455/PBS.20180515083615

Received: May 15, 2018
Accepted: Nov 04, 2018

The most common reported picking region is the face, while other picking sites include arms, legs, trunk, and fingers. Lesions can be in various forms (8). Skin picking can cause tissue damage and often results in serious medical complications such as septicemia and soft tissue infections which require topical or systemic antibiotic treatment (9). thorough physical examination is important to notice the severity and extent of skin lesions (4).

Skin picking disorder was classified under the "impulse control disorders not otherwise specified" subtitle in DSM-IV; while it has been introduced into DSM-V under "obsessive compulsive disorder and related disorders" category (10,11). There is a high rate of accompanying psychiatric disorders to skin picking, especially obsessive-compulsive disorder, body focused repetitive behaviors including trichotillomania, impulse-control disorders, substance-related disorders, anxiety and mood disorders (2).

Skin picking often can cause serious tissue damage that requires antibiotic treatment and even surgical intervention as in our patient (1). Probable medical sequelae contain, lesions, scarring, infections and even significant physical corruption (1). Recently, the tolerability and effect of a few pharmacological medicines have been tested in SPD, with studies containing glutamatergic agents (riluzole and *N*-acetyl cysteine), lamotrigine, selective serotonin reuptake inhibitors (SSRIs) and opioid

antagonists (naltrexone) (12). Herein we present a 2 year-old girl who is peeling her own skin of various body regions with her own nails since 6 months-of-age.

CASE

A 2 year-old girl admitted to child psychiatry outpatient clinic with complaints of peeling her own skin on her neck and hip regions with hands and plucking oral mucosa with her teeth (Figure 1 and 2). Her mother declared that her complaints began when she was 6 months of age and became more frequent over time. These self-mutilation behaviors did not subside after treatments administered in dermatology clinics. Her mother is a housewife, her father is a worker in constructions and she is the smallest of the four children of the family. All developmental stages had occurred normal except for delayed speech. She could say a number of words but was unable to set up sentences yet. She could understand what she hears and could obey commands. There was nothing to note either in her past medical history, including congenital analgesia and/or dysautonomia syndromes resulting in lack of pain, or in the family history regarding any psychiatric disorder. Her mother stated that she was often handcuffed with a rope by her family at home, in order to keep her from self-mutilation behaviors. On physical examination, there were 1x2 cm skin lesion on her right hip, 2x3 cm crusted skin lesion above her neck and 1x1 cm hyperemic lesion on the oral mucosa. The patient was normal otherwise in physical examination and laboratory findings. We started risperidone solution 0.25 mg/day per oral. The skin picking behavior had significantly diminished after two weeks. Her dermatologic and mucosal wounds were almost completely improved at the first month follow-up visit and she was still on the mentioned medication (Figure 3).

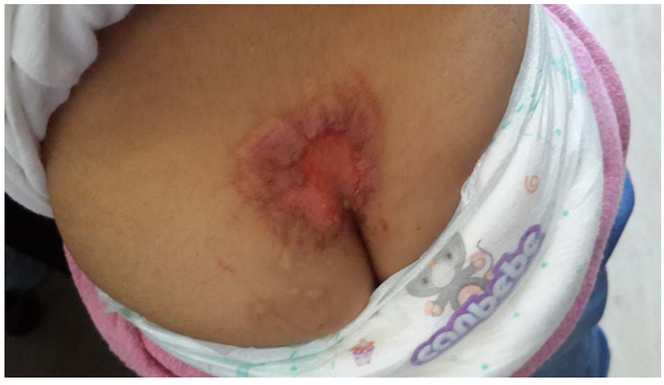

Figure 1. picture demonstrating skin lesions on coxygeal region of the patient

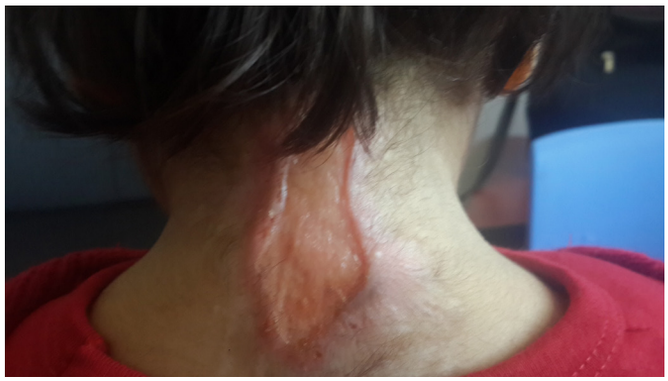

Figure 2. picture demonstrating skin lesions on the nape of patient's neck

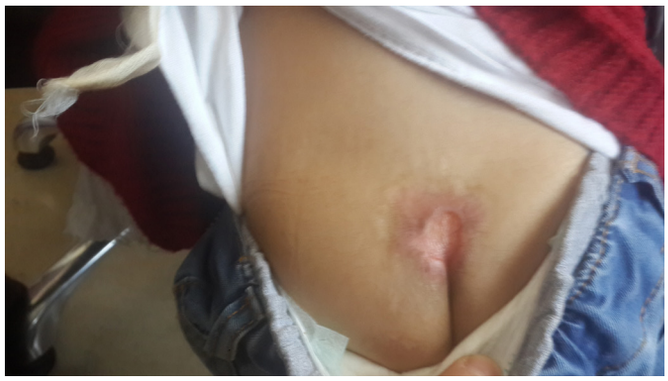

Figure 3. picture demonstrating partially improved skin lesion on the coxygeal region

DISCUSSION

We described a 2 year-old case diagnosed with skin picking disorder who well responded to antipsychotic treatment even after 2 weeks. There was considerable improvement in symptoms and associated dermatologic wounds.

There are limited data about pathologic primary skin picking disorder in childhood (13) The fact that DSM-5 does not include patient age among the diagnostic criteria of skin picking disorder in the sub-heading of 'OCD and related disorders' is one of the limitations of DSM-5.

We can talk about many syndromes admitting with skin picking behaviors. Some of those were considered in the differential diagnosis including Prader Willi Syndrome, Cri Du Chat Syndrom, Lesch Nyhan, Mid-face toddler excoriation syndrome (MiTES) etc. (14,15,16,17) and physical abuse, neglect, mental retardation and autism spectrum disorders. Physical abuse or neglect was

excluded, since she was brought to the hospital by her parents to seek amelioration child's self-mutilation behaviors. Besides, the skin lesions were in her mouth and in the regions where the child can reach. Moreover, self-mutilation behaviors of the patient were also observed during psychiatric evaluation. The child's cognitive, fine and rough motor activities and psychosocial development were consistent her age. There were no behaviors or findings (limited eye contact, unresponsiveness to yelling, reluctance to communicate, echolalia, stereotypical behaviors, etc.) that suggest autism spectrum disorder.

There are some previous studies suggesting behavioral interventions rather than medications for reduction in skin-picking behaviors of neurotypical patients. In a case report, risperidone treatment given to a self-injurious 11-year-old patient with autism and mental retardation has resulted in complete improvement of these behaviors (18).

Our patient didn't have any additional neuro-psychiatric disorder. Skin picking can begin at any age; while, adolescence is the most frequent age of onset. Exceptionally our patient's picking behaviors had begun at a very early age (6 months). The disorder is usually suspected after notification of a dermatological wound. The most frequently picked sites are the head and face probably due to easy of reaching to these regions with hands. Although most patients use their own fingernails for picking, a minority of patients use tweezers or any other tools. Triggers of picking behavior include abnormal or unpleasant sensation on the skin (7). Appropriate goal-directed behaviors are regulated by thalamo-cortical circuits in the integral parallel basal ganglia, which include the direct and indirect dopaminergic pathways. These pathways roughly represent the dorsal basal ganglia functioning in motor and cognitive behaviors; while ventral and basal ganglia are involved in affective and reward based behaviors, respectively. The ventral circuit (emotional behaviors) output are modulated by the dorsal circuit (cognition) (19-21). Thus, previous studies have suggested that increased activity in ventral circuit causes increment in level of anxiety and repetitive behaviors, while decreased activity in the dorsal circuit causes reduction in the ability to control emotional regulation (19, 22–24). The loss of ability in inhibition and regulation of learned automated behaviors may cause repetitive and/or compulsive behaviors such as those observed in OCD, obsession with various parts of own body (Body dysmorphic disorder-BDD) or hair pulling (Trikotillomania-TTM), and skin picking (Excoriation disorder-ExD).

One group of medications shown effective to be in SPD management is SSRIs. (25) In addition to antidepressant drugs, some antipsychotics (pimozide, olanzapine, aripiprazole) have been reported to be beneficial in these patients (26). There is little data about risperidone use in the treatment of SPD in the literature. Malfunctioning of cortico-basal ganglia-thalamo-cortical circuits can be related with SPD and other impulse control disorders. Dysfunction of these areas involving the cerebral orbitofrontal and anterior cingulate cortexes, and the caudate nucleus has been shown previously by functional MRI of the patients presented with OCD (27). It is reasonable that usefulness of risperidone treatment is affected from multiple factors since risperidone acts on a wide range of receptor sites. It is known that dopaminergic agonists aggravate skin picking behaviors (28). Thus, we initiated treatment with risperidone in order to antagonize dopaminergic pathway.

Our patient was too young which prohibits starting most of the antipsychotic drugs. There are several case reports and survey studies about SPD.

Our case is a good example of SPD in terms of early age of onset and well-responding to risperidone treatment. We think that our case would give an idea in the treatment of early onset SPD patients. Further prospective studies evaluating the effectiveness and safety of risperidone treatment in SPD will shed light on this subject. Several factors may limit the choice of certain drugs. Therefore, our case reminds the clinicians to consider atypical antipsychotic drugs in the management of SPD.

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