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Potential etiologic factors in patients with persistent pruritus ani

Potencjalne czynniki etiologiczne u pacjentów z uporczywym świądem odbytu

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Key words

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Słowa kluczowe

świąd odbytu, czynnik ryzyka, wyprysk, leczenie

S u m m a r y

Introduction. Perianal pruritus is probably the most common cutaneous disorder of the genitoanal area. Studies on the epidemiology of causative factors are rare. It occurs in about 1-5% of the population, four times more often in men than women, most usually between the ages of 40-70.

Aim. Evaluation of potential etiologic factors in adult patients with persistent anal pruritus.

Material and methods. Over a 4-year period we prospectively studied 55 patients with a presumptive diagnosis of anal pruritus. The diagnostic algorithm comprised medical history, inspection, microbiology, laboratory chemistry, patch tests, proctoscopy, and biopsy if appropriate.

Results. Twenty six patients had contact eczema. Idiopathic anal pruritus affected 14 of our patients. Five subjects had perianal streptococcal dermatitis and also 5 patients had intertrigo caused by candida albicans. Other diagnosis included inverted psoriasis, condylomata acuminate, erythrasma, oxyuriasis and paraneoplastic pruritus.

Conclusions. Our study showed that the vast majority of patients have the typical characteristics of eczema in the anogenital area. Epidermal testing is a very important component of the diagnostic process. These findings suggest that referral to a dermatologist who cooperate with proctologist is the best option for patients with persistent pruritus ani.

S t r e s z c z e n i e

Wstęp. Świąd odbytu to najczęstsza dolegliwość dermatologiczna okolicy anogenitalnej. Badania epidemiologiczne dotyczące czynników predysponujących dla tej dolegliwości są rzadkie. Występuje on u około 1-5% populacji, czterokrotnie częściej dotyczy mężczyzn niż kobiet, najczęściej w wieku 40-70 lat.

Cel pracy. Ocena potencjalnych czynników etiologicznych u pacjentów z uporczywym świądem odbytu.

Materiał i metody. W ciągu czterech lat zbadano 55 chorych z diagnozą uporczywego świądu odbytu. Algorytm diagnostyczny obejmował wywiad lekarski, badanie fizykalne, wymazy bakteriologiczne i mikologiczne, podstawowe badania laboratoryjne, testy naskórkowe, rektoskopię oraz w niektórych przypadkach wykonano biopsję skóry.

Wyniki. U 26 pacjentów zdiagnozowano wyprysk kontaktowy. Idiopatyczny świąd odbytu dotyczył 14 naszych chorych. Pięć osób miało paciorkowcowe zapalenie skóry okolicy odbytu, również 5 pacjentów miało wyprzenia drożdżakowe. U pozostałych pacjentów wykryto łuszczycę odwróconą, kłykciny kończyste, łupież rumieniowy, owsicę oraz świąd paraneoplastyczny.

Wnioski. Nasze badanie wykazało, iż znaczna większość pacjentów ma typowe cechy wyprysku okolicy anogenitalnej. Testy naskórkowe są bardzo ważną składową procesu diagnostycznego. Wyniki te sugerują, że najlepszą opcją terapeutyczno-diagnostyczną dla pacjentów ze świądem odbytu jest dermatolog współpracujący z proktologiem.

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INTRODUCTION

Anal itching (pruritus ani – PA) is an unpleasant sensation leading to scratching the skin around the anal oriface. The problem is often underestimated; it is embarrassing and can severely impair the patient's quality of life. PA occurs in about 1-5% of the population, four times more often in men than women, most usually between the ages of 40-70 (1). It is a fairly common

symptom occurring in the course of many systemic diseases, both dermatological and proctological. The etiology of itching in the anogenital distance is diverse; it can be associated with the most common proctological comorbidities – most often anal fissure or hemorrhoids. It also occurs in the course of various dermatoses such as allergic eczema, psoriasis inversa and lichen planus, also in infectious dermatoses, and it may be present as the so-called primary or idiopathic anal itching without any apparent reason (2). Other common causes include diaphoresis and inadequate crotch hygiene. The role of uncontrolled release of the mucus and fecal content and of excessive vaginal discharge in women is also stressed. It has been demonstrated that higher incidence of pruritus occurs in those patients who consume large amounts of coffee, chocolate, Coke, citrus fruits, milk and dairy products, and alcohol, particularly beer (3). It should also be emphasized that this ailment is often reported by those patients who overuse hygienic agents, cosmetics and topical drugs containing preservatives, local anesthetics and antibiotics (4).

AIM

The aim of this study was to evaluate the potential etiologic factors in adult patients with persistent anal pruritus.

MATERIAL AND METHODS

The study included 55 patients of both sexes aged 20-79 who reported persistent anal itching present for at least four weeks and who were admitted to the Dermatology Outpatient Clinic and Specialist Proctological Office in 2011-2014.

After obtaining the patients' consent for inclusion in the study, those subjects with pruritus ani who did not report a proctological disease were qualified into the study group. Enrolment was carried out on the basis of: dermatological examination, proctological examination (anoscopy, rectoscopy), laboratory tests, bacteriological and mycological smears collected from the anogenital distance, and epidermal tests.

Before treatment inclusion, each patient was subjected to laboratory tests: blood count with differential blood smear, bilirubin, aspartate aminotransferase (AST), alanine aminotransferase (ALT), blood glucose, urinalysis, stool examination for parasites and EIA for lambliasis, and swabs from the anal area (bacteriological and mycological swabs).

Certified patch tests (Chemotechnique Diagnostics, were performed for Polish Baseline Series, external medications and cosmetics. Test reading was conducted during visits after 48, 72 and 98 hours. Two patients underwent a histopathological examination of skin specimen due to unclear clinical pictures.

RESULTS

The study group comprised of 21 women and 34 men. After a thorough diagnosis, a proctological disease was excluded in all the patients, with 47.2% (26 subjects) diagnosed with contact eczema on the skin around the anus (fig. 1, 2). The most frequently repeated allergens included nickel, fragrance mixes, neomycin and paraben mixes. Idiopathic anal itching affected 25.4% of the patients (14 subjects) – in those subjects the lesions were often shallow linear cracks on the skin without inflammatory reaction; epidermal test results were negative; laboratory tests did not reveal any deviation. Three patients diagnosed with idiopathic anal itching had abundant pubic hair in the anogenital distance.

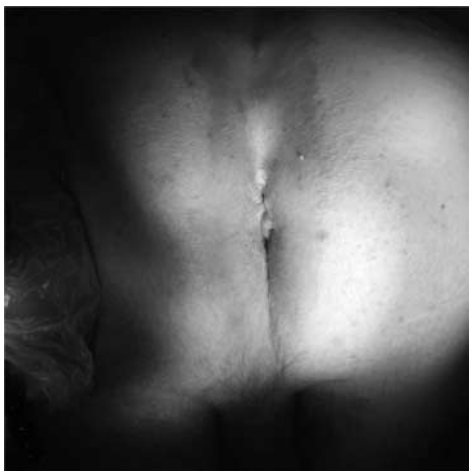

Fig. 1. Contact perianal eczema. Patch test positive for nickiel.

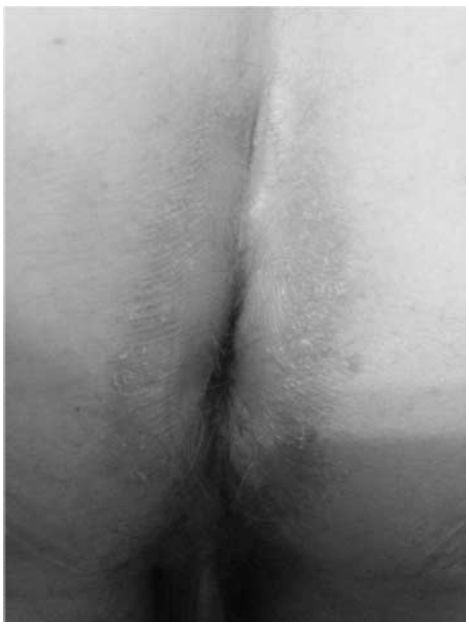

Fig. 2. Contact perianal eczema. Patch test positive for fragnance mix.

Bacteriological examination showed pathogenic β-hemolytic streptococci in 5 patients (9% of subjects); those revealed a perianal streptococcal dermatitis (fig. 3). Intertrigo caused by *Candida albicans* confirmed by mycological examination was found in 5 patients (9% of subjects), including 1 patient in the course of type 2 diabetes. Histopathological examination helped us establish the diagnosis in 1 patient (1.8% of subjects) with psoriasis

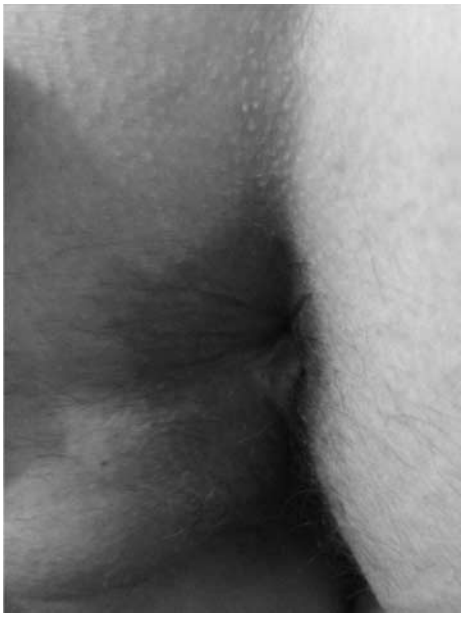

Fig. 3. Perianal streptococcal dermatitis.

inversa and in 1 patient with small genital warts – condylomata acuminata.

Erythrasma, confirmed by Wood's lamp examination, occurred in 1 patient. Oxyuriasis was found in one patient who was diagnosed on the basis of the characteristic history and the presence of nematodes visible around the anus despite a negative result of stool test for parasites. One of the female patients showed a marked variation in her blood counts; during further diagnostic procedures paraneoplastic pruritus in uncharacteristic location was diagnosed to appear in the course of acute lymphocytic leukemia (fig. 4).

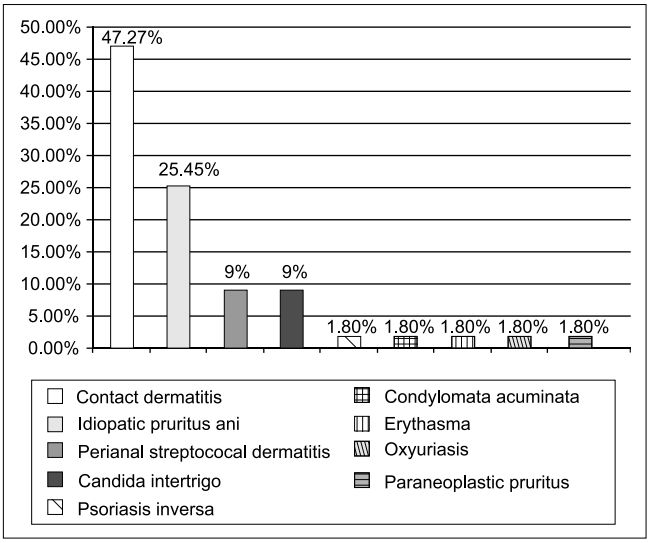

Fig. 4. Etiologic factors in patients with persistent pruritus ani.

DISCUSSION

It is estimated that approximately 25-75% of patients present pruritus ani in the course of a coexisting disease. Many studies have confirmed that very often it is a symptom of a proctological disease, primarily hemorrhoids and anal fissure (2, 5). The treatment of such diseases is quite effective and generally results in a considerable relief to patients. Our goal was to focus on those patients who did not confirm the above-mentioned reasons.

In this study, as many as 26 patients presenting persistent symptoms of anal itching had the symptoms of allergic eczema confirmed by patch tests. Eczema in this area may have an allergic cause or be the result of irritation. It is most often an oozing rash which is later covered with scabs and is subject to exfoliation (6). Predisposing factors for such eczema may include personal hygiene agents, soaps, shampoos, recycled toilet paper, wet wipes, medicines used topically or their components such as neomycin, benzocaine, menthol, iodine, balsam of Peru, resorcinol, camphor, lanolin, cocoa butter and extract of hamamelis varginiana (7, 8). The therapy in such cases is based primarily on the identification and elimination of the irritants or allergens. Topical treatment depends on the character and severity of the eczema. Mild to moderate symptoms, with a small number of skin lesions, can be improved by using a weak corticosteroid ointment, e.g. 1% hydrocortisone in combination with antibacterial and antimycotic components (3).

β-hemolytic *streptococci*, *Staphylococcus aureus* and *Corynebacterium minuttissimum*, are both present in the case of pruritus ani that may extend beyond one year (7). Erythrasma caused by *Corynebacterium minuttissimum* is revealed by exfoliating erythematous foci or dark brown foci, mainly in the area of groins and gluteal fold, less often in the armpits. Diagnosis is based on clinical picture and the characteristic orange-and-red fluorescence under Wood's lamp (9). *Streptococci* and *staphylococci* are the bacteria in that area most frequently present in children, which may also occur in adults. They are clinically manifested by an erythematous, papular and oozing rash of clear boundaries. They require general treatment with penicillins and the therapy should take up to 3 weeks (10).

In several studies, intertrigo caused by *Candida albicans* accounts for approximately 10-42% of cases of pruritus ani or acts as an additional exacerbating factor (11, 12). It most commonly develops in the spaces between fingers, less often toes, and in the folds of skin in the inframammary, inguinal and intergluteal areas. *Candida albicans* is an opportunistic fungus; the disease develops fostered by decreased immune deficiency due to antibiotic and steroid therapy, hormonal disorders, alcohol abuse, diabetes, obesity and neglected hygiene (7).

The diseases manifested by itching anus also include sexually transmitted diseases, i.e. genital herpes, syphilis, gonorrhea and genital warts. Itching occurs most frequently in the course of HPV infection (13). In our study, the diagnosis was confirmed in one patient with small papillous eruptions around the anus.

Typical dermatological diseases can also be the root of anal problems; sometimes the skin is affected only in

this area. In the study by Dasan et al., as many as 22 in 41 patients had anal itching in the course of psoriasis vulgaris (7). Psoriatic lesions localized in the gluteal fold are wet, macerated and covered with a very small amount of squama; they usually do not look like the lesions typical of the disease. Sometimes lesions are localized only in that area; that condition is known as psoriasis inversa.

In cases where the examination and diagnosis showed no ground for anogenital itching, we were dealing with the so-called idiopathic pruritus ani. The incidence of this condition, according to some researchers, accounts for about 90% of cases (14). In our study, 25.4% of patients had idiopathic pruritus ani; the data seem to confirm the reports of other authors as to the prevalence of the disease at the level of 5-25% (2, 12, 15). In the absence of obvious organic origin of the disease, itching may be associated with mental and personality disorders (16).

CONCLUSIONS

Anal itching is a common problem in medical practice; it may be a dominant symptom in the course of various diseases. Often, it may be inaccurately diagnosed and thus inadequately treated. That is due to anatomical considerations, as skin lesions in this area often do not expose any distinctive features. Our study showed that the vast majority of patients have the typical characteristics of eczema in the anogenital area. Epidermal testing is a very important component of the diagnostic process. It should be noted that anal itching is a symptom and does not form any diagnosis; therefore, accurate diagnostic procedures and patient's treatment should be performed by cooperating specialists: a dermatologist and a proctologist.

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