

CONTACT POINTS

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Neutrophilic dermatosis of the dorsal hands elicited by thermal injury

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Key words: burns; neutrophilic dermatosis of the dorsal hands; thermal injury.

Neutrophilic vascular reactions range histologically from fully developed leukocytoclastic vasculitis to mild neutrophilic vascular involvement (1). Limited forms of neutrophilic dermatosis that show no vascular involvement have been termed as localized Sweet's syndrome (2). The term pustular vasculitis of the dorsal hands was first introduced in 1995 to describe an eruption of papules and plaques localized to the radial sides of the hands, which histologically showed leukocytoclastic vasculitis (3). Later, this condition was recognized as neutrophilic dermatosis of the dorsal hands (NDDH) and as demonstrating a spectrum of vascular change (4).

Case Report

A 54-year-old woman with well-controlled, insulin-dependent diabetes presented with a chronic dermatosis of the dorsal hands induced by thermal injury. The onset of the disease in 1998 followed a minor burn to the dorsum of the right hand where a firm, bluish-red plaque with peripheral vesicles and an elevated well-demarcated edge had appeared, accompanied by nocturnal pain. The lesion rapidly responded to systemic corticosteroid and healed without scarring.

5 years later, 2 weeks after a burn to the left hand, a similar bluish indurated plaque developed, localized to

the radial side plus the first 3 digits. Subsequently, a bulla appeared in the centre of this plaque.

Based on the clinical findings and a dense band-like neutrophilic dermal infiltrate with leukocytoclastic vasculitis histologically, a diagnosis of NDDH was made. Immunofluorescence showed immunoglobulin G (IgG) and C3 complement fragments within the affected vessel walls, confirming vasculitis. No evidence of neoplasia was detected.

Once again, the lesion responded rapidly to systemic corticosteroid and healed within a month without scarring. No relapse had occurred at a 3-month follow-up.

Discussion

3 patients with haemorrhagic bullae, plaques and pustules, restricted to the dorsal hands, were described by Galaria et al. in 2000, biopsies demonstrating a neutrophilic infiltrate and leukocytoclasia (4). The condition was termed as NDDH. NDDH has to date been described in 19 patients: 3 men and 16 women (5).

NDDH bears some clinical and histopathological resemblance to previously described neutrophilic dermatoses: localized Sweet's syndrome and erythema elevatum diutinum (6, 7). Controversy remains as to the categorization of this spectrum of diseases (8, 9). In contrast to Sweet's syndrome (10, 11), NDDH does not appear to be associated with leukaemia. Nor does it seem to be triggered by drugs.

A recently published report suggested that a localized neutrophilic dermatosis had been elicited by welding burns (12). Our case lends some further credence to this aetiology, though further published cases are required to confirm it.

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Lichen nitidus-like allergic contact dermatitis – a clinicopathological study

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Key words: allergic contact dermatitis; chromate; lichen nitidus; occupational; propylene glycol; talc.

Lichen nitidus (LN) is an idiopathic granulomatous reaction manifested by multiple tiny, shiny non-pruritic papules with a flat surface (1).

During the last year, we studied 112 cases of palmar allergic contact dermatitis. Of these, 4 cases exhibited the morphology and the histopathological characteristics of LN. All the cases presenting with palmar lesions in the clinic ($n = 1289$) were subjected to patch testing either with the Indian standard series or with the standard series plus the implicated allergens in appropriate dilution, when the patient's occupational and other relevant history merited this. For non-standard allergen (e.g. talc), 20 volunteers without a history of contact allergy to that substance were selected to rule out false-positive irritant reactions. All patch test results were read according to the ICDRG grading at 3 days.

The LN-like cases represented 3% of the study population ($n = 112$). All were males. 3 were characterized by widespread distribution of the lesions over the extremities and trunk; only in 1 case were the lesions confined to the palms. In none of the patients were penile lesions observed. There were morphological variations in the form of pompholyx-like lesions ($n = 2$), confluent hyperkeratosis ($n = 1$) and discrete papules ($n = 1$).

Allergic and occupational variations were also marked. 2 of the cases showed patch test positivity to potassium dichromate 0.5% pet., 1 to talc 0.5% aq. and 1 to propylene glycol 5% aq. The reaction gradings were + and ++ for potassium dichromate, + for talc and ++ for propylene glycol. The occupations ranged from painting and construction work (potassium dichromate) to school teaching (talc) and refrigeration work (propylene

glycol). However, the test sites demonstrated only erythema and papules and did not show any characteristics of LN.

Unlike idiopathic LN, all cases demonstrated some degree of pruritus. Although the study population is very small and no statistical significance can be attached, the sex bias in favour of males may also be noted. The distribution of lesions corresponding to the sites of allergenic exposure is significant in these cases. The histopathological findings were remarkably similar in that all of the cases demonstrated granulomatous reaction and the presence of Langerhans' cells. A deep parakeratotic plug, distinguishing the lesions from palmar lichen planus, was also significant (2). Plasma cells were not noticeable, which may be taken as a point of histological departure from idiopathic LN (3). It is also interesting to note, in view of the fact that chromate is the major allergen in these cases (50%), that granulomatous allergic contact dermatitis due to chromium and other metal salts has already been described (4), though none of these have shown the morphological characteristics of LN. All the 4 cases responded to avoidance of the respective allergens, oral antihistamine and a potent topical corticosteroid for 2–4 weeks.

To the best of our knowledge, this is the 1st report of LN developing secondarily to contact allergy and also the 1st report of talc as an allergen.

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Multiple contact allergens in a violinist

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Key words: allergic contact dermatitis; colophonium; ebony; fiddler's fingers; hand dermatitis; musician; nickel; rosin; violin.

String players have presented with a variety of distinct clinical signs of allergic contact dermatitis (1, 2). Most commonly seen is 'fiddler's neck', a chin dermatitis induced by exotic woods, metallic components or varnishes on the instrument's chin rest (3). 'Fiddler's fingers' is induced by allergy both to colophonium (rosin) and, less often, to metals in the strings (4). Fingerboards composed of ebony wood are also a source of sensitization. Contact allergy to propolis, a sensitizer found in violin varnish, has been reported in a violin maker (5).

Case Report

A 25-year-old professional violinist was referred with a 6-month history of an eruption on the fingertips of her left hand. Various strength topical corticosteroids and topical tacrolimus provided little help. She did report a personal history of atopy. As a professional violinist, she has been using the same antique 1836 Rivolta violin for many years.

Clinically, the fingertips on the left hand showed an eczematous dermatitis with vesiculation in the areas of contact with the strings and fingerboard. Her

right hand and the remainder of her skin were normal.

Patch testing was performed to 54 allergens (Chemotechnique Diagnostics, Malmö, Sweden), based on the NACDG Screening Series, and to her own violin rosin. Readings were taken according to the methodology of the ICDRG after 2 and 4 days. Positive reactions were noted to nickel sulfate, cobalt chloride, colophonium, her own rosin, neomycin sulfate, formaldehyde and 3 formaldehyde-releasing preservatives (quaternium-15, imidazolidinyl urea and diazolidinyl urea). Further testing was negative to propolis and to a solid piece of unfinished ebony wood, but positive (++) to shavings from this ebony wood. Evaluation of the patient's metal E string proved dimethylglyoxime spot test positive, confirming the release of nickel.

Discussion

Occupational dermatitis in string players presents a difficult management problem. This patient presents a particular challenge because of her multiple sensitivities. Rosin is used on the strings and is necessary to induce friction that influences the production of sound and stabilizes bow contact. The fingerboard itself is made of ebony wood. The strings, depending on the note, are composed of nickel, aluminium, chrome, gold or silver. Her E string contained nickel. Although it is relatively simple for her to avoid the preservatives and topical antibiotic allergens, the patient is continuously exposed to rosin, the nickel in the E string and the ebony wood on the fingerboard.

Identification of allergens in musicians experiencing occupational dermatitis is of the utmost importance, but finding suitable substitutes proves difficult. A substitute for rosin proves the most challenging. A modification of ingredients adversely affects the quality of rosin, instrumental tone and adhesive friction. However, there are synthetic brands available that warrant trial (e.g. Clarity[®] rosin, Shar Products Company, Ann Arbor, MI, USA). Although there are pure gut strings available, a change in the string composition poses a problem in that it can cause an unacceptable change in tone or quality of sound. Changing the ebony fingerboard to a different type of wood fingerboard can more easily be accomplished.

These problems that our violinist faces have, and may continue to have, a significant impact on her musical career. Since there are various causes of allergic contact dermatitis in violinists, it is important to test for all of these potential allergens.

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Near-fatal delayed hypersensitivity reaction to cloxacillin

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Key words: antibiotics; betalactams; cloxacillin; cutaneous adverse drug reactions; delayed hypersensitivity; lack of cross-sensitivity; medicaments; patch testing.

Reports of cell-mediated allergy to betalactams have become increasingly frequent in recent years (1–3). Patch testing is useful in such cases (1–5).

Case Report

A patient with a typical clinical picture of bacterial endocarditis was admitted to our hospital. Empirical treatment, with intravenous ampicillin and gentamicin, was initially given for 3 days. After isolation of *Staphylococcus aureus* from blood cultures and the finding of fibrinous clots forming on ulcerated surfaces of the valves on echocardiography, cloxacillin was started and the other antibiotics discontinued. Clinical symptoms improved notably, but after 20 days, he developed fever, generalized erythematous maculopapular rash and malaise. New blood cultures were set up, and gentamicin was again added. The clinical picture worsened progressively, with toxic haematological values, severe leukopenia, failure of hepatic and renal function and progression of the skin lesions to purple blisters and subsequent desquamation. After 5 days, gentamicin and cloxacillin were discontinued, and vancomycin, prednisone and antihistamines were started. No bacterium was isolated in later blood cultures. A skin biopsy showed a T-lymphocyte infiltrate, with some eosinophils and neutrophils. After 1 week, he progressively felt better until complete skin recuperation after 3 weeks.

2 months later, prick testing and intradermal testing were performed with intravenous preparations of the antibiotics vancomycin (Lilly, Madrid, Spain), ampicillin (Medea S.A., Barcelona, Spain), cloxacillin (Normon, Madrid, Spain) and gentamicin (Normon, Madrid, Spain) in their own diluents. Prick tests with vancomycin 1% (10 mg/ml), ampicillin 2% (20 mg/ml), cloxacillin 2% (20 mg/ml) and gentamicin 4% (40 mg/ml) were negative. Intradermal tests with vancomycin 1% (10 mg/ml), ampicillin 0.2 and 2% (2 and 20 mg/ml) and gentamicin 0.4% (4 mg/ml) were negative. Intradermal test with cloxacillin 0.2% (2 mg/ml) was negative on immediate reading at 20 min, but clearly positive at 2 and 4 days. Patch tests with gentamicin (0.4%, 4 and 5% pet. and aq.) and ampicillin (0.2%, 0.5%, 2% and 5% pet. and aq.) were negative. Patch tests with cloxacillin (0.2 and 2% pet. and aq.) were clearly positive at D2 and D4, with stronger reactions at the higher concentrations: 0.2% pet. and aq. D2+/D4+; 2% pet. D2++/D4++; 2% aq. D2++/D4+++.

A RAST assay was performed in our laboratory to assess specific

immunoglobulin E (IgE) to cloxacillin and gentamicin. Specific IgE to penicillin, ampicillin and amoxicillin was investigated by the CAP-FEIA system (Pharmacia, Uppsala, Sweden). We could not detect specific IgE to cloxacillin, ampicillin, amoxicillin, penicillin or gentamicin in the serum.

Skin biopsies performed in the positive patch-tested area showed a clear T-lymphocyte, CD4⁺ infiltrate, thus confirming the occurrence of a cell-mediated response.

A challenge test was proposed to assess the tolerance of gentamicin, informed consent having been obtained beforehand: repeated therapeutic doses of gentamicin were well tolerated. Cloxacillin provocation was not performed because cloxacillin was considered the causal agent of this severe delayed hypersensitivity reaction.

Discussion

Cell-mediated allergy to betalactams, mainly aminopenicillins, has been reported with increasing frequency in recent years, though severe delayed hypersensitivity reactions exclusively due to cloxacillin are extremely rare (1–5). In our case, cloxacillin provoked a severe hypersensitivity reaction. The involvement of other drugs was not demonstrated. Despite the negativity of patch tests with ampicillin, we considered that the severity of the reaction ruled out provocation with other betalactams. With regard to the specificity of patch testing (5), such provocation might be performed if absolutely necessary in the future. Patch tests were very useful for diagnosis and further clinical treatment of this patient, helping to identify safe alternative antibiotics that could be successfully tolerated.

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Allergic contact dermatitis from a condensate of boric acid, monoethanolamine and fatty acids in a metalworking fluid

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Key words: allergic contact dermatitis; boric acid compounds; metalworking fluids; occupational.

Case Report

A 37-year-old male mechanic had worked at a factory manufacturing domestic and industrial ball valve products for 9 months, when he developed an itchy eczema on the hands and arms. The eczema was related to his work on a computer numerically controlled (CNC) machine, where the patient was daily exposed to a mist of a water-based metalworking fluid. The eczema spread rapidly to the neck and face, causing swelling and reddening of the eyelids. Use of gloves during work had little or no protective effect.

Patch testing was performed with the European standard series (TRUE TestTM panels 1 and 2, AlkAbello, Hoersholm, Denmark), supplemented with petrolatum-based patch test preparations (Chemotechnique, Malmö, Sweden) in Finn Chambers (Epitest Oy, Helsinki, Finland) on Scanpor (Norgesplaster A/S, Vennesla, Norway). The constituents of the metalworking fluid were kindly supplied by the manufacturer for further testing.

The patient showed a ++ reaction at D3 to a 1% dilution in water of a condensate of boric acid, monoethanolamine (MEA) and fatty acids, present in the fluid concentrate at 21%. The patient changed job and the eczema disappeared. 26 consecutive patients were tested as controls with the condensate at a 5× higher concentration (5%). 3 showed doubtful (?+) reactions and 2 showed irritant reactions.

Comment

Several of the components of metalworking fluids have the potential to cause irritant and/or allergic contact dermatitis. Boric acid compounds are often used as components in metalworking fluids due to good corrosion-inhibition properties, whereas fatty acid amides function as coemulsifiers and also as corrosion inhibitors.

The major goal for the development of metalworking fluids is to obtain good technical performance. Further, economical and safety considerations are important. The metalworking fluid industry often uses technical grade ingredients with the desired properties, because the use of more well-defined chemistry is both expensive and valueless to the manufacturer, and exact knowledge of the chemical structures contained in the ingredients is not always available.

In this case, the allergen was shown to be a component of a condensate produced by heating a mixture of boric acid, MEA and tall oil fatty acids. Alkanolamineborates may be present in such condensates, these being condensation products of boric acid and mono-, di-, or triethanolamine, and used as corrosion inhibitors and preservatives in metalworking fluids. Cases of allergic contact dermatitis from these compounds have been described (1), however, it is not known if the allergen(s) in the present case is the same as

previously reported. Extensive chemical analysis and subsequent testing with fractions would be needed to answer this question.

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Allergic contact dermatitis due to glycyrrhizic acid as an ingredient of a hair restorer

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Key words: allergic contact dermatitis; androgenetic alopecia; glycyrrhizic acid; medicaments; minoxidil.

Case Report

A 40-year-old female kindergarten teacher, with long-term androgenetic alopecia, was referred to our clinic. No personal or family atopic history was reported. 2 months earlier, she had started topical daily application of 5% minoxidil. On the 5th day erythema and micropapules, with burning and itching, appeared locally leading to cessation of the treatment. After a month of oral antihistamine and topical corticosteroid therapy, with complete resolution of the pre-

vious signs of local irritation, alternative treatment was started with topical application of another hair restorer, mainly consisting of *Ruscus auleatus*, glycyrrhizic acid and *Serenoa serrulata*. 2 weeks later, she again noticed erythematous papules, scaling and itching on her scalp, which once more led to therapeutic withdrawal. Patch testing with the Portuguese standard series, 5% minoxidil (in the commercial form used by the patient) and the hair restorer mentioned above was performed. Positivity (++) was shown at 2 and 4 days to the latter hair restorer, with no reaction at all to minoxidil.

The manufacturer then supplied the 10 components (coded) of the hair restorer and further patch testing was carried out. Once more we found positivity (++) to the hair restorer as a whole, this time with a similar reaction (++) to glycyrrhizic acid (0.3% aq.), 20 controls were negative.

Comment

Treatments for androgenetic alopecia, range from non-hormonal therapy with topical minoxidil to experimental use of anti-androgens and various combinations of medical and surgical treatments (1). Both allergic and irritant contact dermatitis from minoxidil lotion have already been described (2), and its components as well allergic contact dermatitis from *Serenoa repens* and sensitization occurring after previous treatment with minoxidil (3). However, we could find no previous report from glycyrrhizic acid, as in this case, though there have been a few cases of contact allergy to enoxolone (18 β glycyrrhetinic acid) reported (4–6).

Enoxolone is derived from glycyrrhizic acid. Licorice root, a plant of the Glycyrrhiceae family, has two active components, glycyrrhizin (glycyrrhizic acid) and triterpenes. Glycyrrhizin occurs as a mixture of potassium and calcium salts. On hydrolysis, the 2 molecules of D-glucuronic acid and glycyrrhetinic acid (enoxolone) are released. It also contains complex B and E vitamins, pantothenic acid, biotin, phosphorus, lecithin, iodine, chromium and zinc. Triterpenes are similar to adrenal cortical hormones.

Glycyrrhizic acid has been used as cough suppressant, and in the treatment of adrenal insufficiency and gastrointestinal diseases. It has an aldosterone-like effect (7) and it was recently demonstrated to diminish testosterone levels by inhibiting 17 β -hydroxysteroid dehydrogenase and 17,20 lyase, the enzymes responsible for the conversion of 17-hydroxyprogesterone to androstenedione. Androstenedione is normally converted to testosterone (8).

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Acute generalized exanthematous pustulosis induced by ranitidine hydrochloride

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Key words: acute generalized exanthematous pustulosis; cutaneous adverse drug reaction; positive patch test; ranitidine.

Case Report

A 53-year-old man presented with an extensive erythematous and pustular eruption of sudden onset. He had no personal or family history of skin disease. 10 days before, the patient had been started on ranitidine hydrochloride 300 mg oral daily. Otherwise, he had been taking atorvastatine and clopidogrel for the last 2 years. Examination revealed an erythematous eruption, studded with numerous non-follicular pustules smaller than 5 mm in diameter, over the trunk and the extremities. There was also oedema of the left hand. Erythema multiforme-like lesions were noted in some areas. Palms, soles and visible mucosa were spared. No fever was present.

Laboratory examination showed a mild leukocytosis with neutrophilia and eosinophilia. Cultures for bacteria and fungi of the pustular contents were negative. A punch biopsy of an affected area showed a subcorneal pustule, focal keratinocyte necrosis and a mild dermal perivascular infiltrate of lymphocytes with numerous eosinophils, histologic findings consistent with acute generalized exanthematous pustulosis. The patient was admitted to hospital and all medication was discontinued. The acute eruption resolved within a week, followed by postinflammatory desquamation.

2 months after the cutaneous reaction, patch tests were performed with GEIDC standard series and a tablet of ranitidine hydrochloride dispersed

in pet. Only the ranitidine test gave a positive (++) reaction, manifesting as a pustular eruption on an erythematous base. Patch testing with ranitidine hydrochloride in pet. was also performed in 15 controls, with negative results.

Discussion

Acute exanthematous generalized pustulosis (AGEP) is an uncommon reaction pattern characterized by the sudden, extensive onset of non-follicular sterile pustules on an erythematous background, fever and elevated numbers of blood neutrophils. Target-like lesions may be associated (1, 2). Most cases are related to drugs, mainly to antibiotics. Other causes have occasionally been described, such as acute infections with enteroviruses or hypersensitivity to mercury (1, 2). The main differential diagnosis is pustular psoriasis: AGEP is a reaction pattern potentially favoured by a psoriatic background, though histologically different from pustular psoriasis (1, 3).

Patch testing has been variably useful in identifying the aetiological agent in cases of AGEP. Approximately 50% of AGEP cases demonstrate positive patch test results, usually reproducing the original eruption both clinically and histologically (2). These cases argue strongly for a Type IV-delayed hypersensitivity reaction as the pathophysiologic mechanism of AGEP (4, 5).

We have found other cases of AGEP caused by ranitidine (6), but our review of the literature failed to identify any reports of AGEP related to ranitidine intake confirmed by patch testing. There are previous reports of occupational contact dermatitis in pharmaceutical manufacturing plant employees exposed to ranitidine compounds, with positive patch tests to 1–5% ranitidine hydrochloride in pet. (7). It has been suggested that the furan ring may be the main sensitizing moiety (7, 8).

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Metamizole-induced acute generalized exanthematous pustulosis

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Key words: acute generalized exanthematous pustulosis; cutaneous adverse drug reactions; dipyrone; lack of cross-sensitivity; metamizole; positive patch test; pyrazolones.

Acute generalized exanthematous pustulosis (AGEP) is a rare, but well recognized, drug-induced hypersensitivity reaction. Most cases of AGEP are associated with antibiotics. We report a case of AGEP due to metamizole.

Case Report

A 58-year-old man presented a diffuse pruritic eruption of 1–2 mm pustules on an erythematous background over the trunk with malaise. There was no adenopathy. The patient had been operated 48 h earlier for a ruptured tendon with mepivacaine and bupivacaine, and concurrent medications included cefazoline, metamizole and enoxaparin. He had no known allergies, no history of drug or food reactions nor contact hypersensitivity.

Laboratory testing showed a neutrophilia. Erythrocyte sedimentation rate, urinalysis, biochemistry (liver and renal function tests and electrolytes) and coagulation studies were within normal limits. Histologic examination of the skin showed spongiform pustules, papillary dermal oedema and a perivascular lymphohistiocytic and neutrophilic infiltrate. Microbiological cultures of pustules were negative.

Cefazoline and metamizole were discontinued, and the eruption resolved without sequelae after 1 week of treatment with oral dextchlorpheniramine and prednisone, with emollients.

3 months after the adverse reaction, we carried out patch tests. Only metamizole was positive (Table 1). Controlled administration of cefazoline, mepivacaine and bupivacaine was well tolerated after the reaction, and the patient has taken other NSAIDs without problems.

Discussion

AGEP is an uncommon cutaneous eruption that is most often provoked by drugs, by acute infections with enteroviruses or by mercury. It is characterized by acute, extensive forma-

tion of non-follicular sterile pustules on an erythematous background, fever and an elevated number of blood neutrophils. The drugs most frequently associated with development of AGEP are macrolide and β -lactam antibiotics. Other agents reported to cause AGEP, more rarely, include carbamazepine, phenytoin, nifedipine, diltiazem, ciprofloxacin, terbinafine and itraconazole (1).

The eruption frequently begins on the face with rapid spread to the trunk and extremities. Onset occurs within 2–21 days of initiation of the provoking drug, followed by desquamation, approximately 2 weeks later. Following discontinuation of the offending drug, the eruption resolves without serious sequelae. Diagnosis may be aided by patch testing. Avoidance of the causative drug is recommended (2).

Comment

- (1) To our knowledge, this is the first case reported of AGEP induced by metamizole.
- (2) Patch tests have been useful in diagnosis.
- (3) We have not found cross-reactions with other NSAIDs.

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Pigmented contact cheilitis from ricinoleic acid in lipsticks

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Key words: cosmetics; lipsticks; pigmented allergic contact cheilitis; ricinoleic acid.

Case Report

A 30-year-old Chinese woman presented to our hospital, in June 2002, with darkened lips and associated itchy swelling for the past 1 year. There was no personal or family history of atopy. She was previously using commercial brands of lipsticks but had also been using lipsticks prescribed by a private general practitioner. There had not been any recent change in the brand of toothpaste, and there were no other obvious triggering or precipitating factors of significance.

Clinically, scaly erythema with associated diffuse hyperpigmentation was seen on the upper and lower lips and the adjacent vermilion border. There was no associated intraoral hyperpigmentation or hyperpigmentation elsewhere. The clinical differential diagnoses considered were pigmented contact dermatitis from lipsticks and fixed drug eruption. The latter diagnosis was thought to be less likely, as there was no significant drug history of note. She was treated with topical corticosteroid.

She was patch tested subsequently to the National Skin Centre (NSC) standard series, NSC lip series, which include ricinoleic acid 30% pet., and also to her own commercial lipsticks. At D3, there were ++ reactions to ricinoleic acid and to an unnamed lipstick preparation provided by her private general practitioner. 2 weeks later, she was further patch tested to the NSC-pigmented contact dermatitis series, additional commercial lipsticks and 2 cleansers that she had not brought with her previously. Numerous + patch test reactions were found to 3 of the commercial lipsticks, and marked hyperpigmentation was noted on the patch

Table 1. Patch test results

Drug	Concentration (%)	Vehicle	Results (D2/D4)
Cefazoline	10–20	pet./aq.	–
Metamizole	10–20	pet./aq.*	++
Mepivacaine	10–20	pet./aq.	–
Bupivacaine	10–20	pet./aq.	–

*10 control patients were negative.

test site of 1 of the commercial brands of lipstick (Table 1). The patient stopped using all lipsticks for the following 1 year, with complete resolution of pruritus. There was 40% improvement in her condition, with residual brown hyperpigmentation on her lower lip.

Comments

Allergic contact dermatitis from ricinoleic acid in castor oil is a well known entity, first reported by Sai in 1983 (1). Sources of allergic contact dermatitis from ricinoleic acid and its derivatives range from deodorants and lipsticks to a military camouflage stick (2–6).

Pigmented contact dermatitis is another well known entity, with various allergens previously reported, notably azo dyes, deodorants, nickel, fragrance and minoxidil (7–11). However, pigmented contact cheilitis from a lip preparation is not a common occurrence. Hemmer et al. (12) reported a Philippina patient who presented with hyperpigmentation of her lips from the use of lipstick. This patient's condition improved with avoidance, but exhaustive patch testing failed to elucidate the exact allergen and it was concluded that the cheilitis occurred as a result of chemical irritation.

Our patient showed a distinct clinical presentation suggestive of pigmented allergic contact cheilitis. Patch testing demonstrated positive reactions to various lipsticks and ricinoleic acid. Hyperpigmentation was also demonstrated on one of the patch test sites with the patient's own commercial lipsticks. Ricinoleic acid should be included as one of the putative contact allergens in the evaluation of pigmented contact

dermatitis or pigmented contact cheilitis.

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Contact allergy to various ingredients of topical medicaments

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Key words: asiatic acid; asiaticoside; Centella asiatica; contact dermatitis; madecassic acid; methylprednisolone aceponate.

Case Report

An 18-year-old woman presented with a pruritic eczematous eruption on the dorsum of the 4th proximal interdigital joint area and face, which developed after topically applying Madecassol[®] ointment (Dongkook Pharmaceutical Co., Seoul, South Korea). Previously, she had used various topical medicaments for the treatment of a burn and had often experienced exacerbations of her skin lesions after applying Madecassol[®] ointment. A provisional diagnosis of contact dermatitis and autosensitization dermatitis was made, and she was treated with oral medication for 1 week, after which Advantan[®] ointment (Schering Pharmaceutical Co., Seoul, South Korea) was tried. However, after applying Advantan[®] ointment, her skin lesion was abruptly aggravated.

Patch tests were performed with the Korean standard series (Chemotechnique Diagnostics, Malmö, Sweden), a cosmetic series (Chemotechnique

Table 1. Patch test results

	%/vehicle	D3
Ricinoleic acid	30% pet.	++
Lipstick from medical clinic (red)	As is	++
Own commercial lipstick 1	As is	+
Own commercial lipstick 2	As is	+
Own commercial lipstick 3	As is	+
Lipstick from medical clinic (neutral)	As is	+
NSC lip series	—	—
NSC-pigmented contact dermatitis series	—	—

NSC = National Skin Centre.

Table 1. Patch test results

Madecassol [®] ointment	D2	D3
Hydrocortisone acetate (2% eth.)	++	++
Neomycin sulfate (20% pet.)	++	++
TECA (10% pet.)	++	++
Advantan [®] ointment		
Methylprednisolone aceponate (1% eth.)	++	++
Dehymuls E (as is)	–	–
Heavy liquid paraffin (as is)	–	–
White soft paraffin (as is)	–	–

TECA, titrated extract of *Centella asiatica* asiaticoside + free genins (asiatic acid, madecassic acid).

Diagnostics), Advantan[®] ointment (as is), Madecassol[®] ointment (as is) and Dermatop[®] ointment (Aventis, Seoul, South Korea) (as is), using Finn Chambers on Scanpor tape (Epitest, Tuusula, Finland) on the skin of her back. Patch tests were read at 2 and 4 days after application. Reactions were scored as recommended by the International Contact Dermatitis Research Group (ICDRG). The Korean standard series showed positive reactions to neomycin sulfate (+++D2/+++D4) and balsam of Peru (Myroxylon Pereirae resin) (+D2/+D4). In addition, she was positive to Advantan[®] (+++D2/+++D4) and Madecassol[®] ointments (+++D2/+++D4). Subsequent patch tests were performed with the individual ingredients of Madecassol[®] and Advantan[®] ointments, kindly provided by Dongkook and Schering Pharmaceuticals Company, respectively (Table 1). Hydrocortisone acetate (++D2/++D4), neomycin sulfate (++D2/++D4) and titrated extract of *Centella asiatica* (++D2/++D4) among the ingredients of Madecassol[®] ointment and methylprednisolone aceponate (++D2/++D4) among the ingredients of Advantan[®] ointment were positive.

Discussion

The reported frequency of contact allergy to corticosteroids on patch testing varies mainly between 0.2 and 4.8% (1), although the reported rate has been as high as 13.3% (2). Coopman et al. (3) classified corticosteroids into 4 groups, groups A–D, based on the frequency of cross-reactivity. Prednicarbate and 6 α -methylprednisolone aceponate (MPA), which belong to Group D, cross-react with group A corticosteroids because of steroid metabolism. MPA is meta-

bolized to 6 α -methylprednisolone-17-propionate (group D), which is then metabolized to methylprednisolone (group A) (4). In our case, the patient showed a positive reaction to both hydrocortisone acetate and MPA, and this is suspected to be the result of cross-reaction between hydrocortisone acetate and MPA, to which she had not previously been exposed.

Centella asiatica is a species of the Apiaceae family, called familiarly centella, hydrocotyle, gotu kola or Indian pennywort. Centella has been to treat skin diseases such as leprosy sores, slow-healing wounds, keloids, hypertrophic scars, cellulitis and striae distensae (5). The action of promoting the epithelialization of wounds and ulcers has been confirmed in an animal study (6). In Korea, centella extracts have been on the market for many years under the trade name of Madecassol[®]. A centella extract consists of 3 major triterpenic acids (asiaticoside, madecassic acid and asiatic acid). Huriez and Martin (7) suggested that asiaticoside was allergenic, although Hausen considered that centella extract was a weak sensitizer (5).

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Systemic contact dermatitis from tamsulosin

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Key words: cutaneous adverse drug reactions; systemic contact dermatitis; tamsulosin.

Case Report

Tamsulosin is a selective $\alpha_{1a/d}$ -blocker frequently used for symptomatic relief of benign prostate hyperplasia (BPH). The most frequent adverse reactions are dizziness and headache, orthostatic hypotension, tachycardia, gastrointestinal complaints and ejaculation disorders.

Sometimes, hypersensitivity reactions such as rash or pruritus occur (1).

A 46-year-old man presented with itch and rash for 1 week. On examination, we found widespread erythematous papules and plaques and on both hands, vesicles. On 1 wrist and on the neck, there were erythematous plaques with lichenification. The patient was treated with triamcinolone acetonide 40 mg/ml 1 ml intramuscular with good result.

2 weeks before, he had started therapy with tamsulosin 0.4 mg oral, daily for BPH. He had discontinued the drug immediately after the appearance of the first skin symptoms.

The patient had concomitantly taken paroxetine 20 mg oral, daily for 3 years. He had a history of eczema and hay fever. In the past year, he had been free of skin disease, with the exception of a persistent patch of eczema on one wrist, which was being treated with hydrocortisone butyrate cream.

8 weeks later, patch tests were performed with the European standard series and tamsulosin as is. There was a ++ reaction to tamsulosin at day 3. Tamsulosin as is was tested in 20 control patients without any reaction stronger than a slightly irritant reaction (erythema) in 1 patient. 1 week after the patch tests, a rechallenge with tamsulosin was performed. The eczema returned within 3 days.

According to the Gell and Coombs classification (2), this eczematous skin eruption is a type 4 allergic reaction. Systemic type 4 skin reactions with positive patch tests are reported with several drugs, such as carbamazepine, practolol, tetrazepam and pyrazolines. Calkin and Maibach formulated 6 criteria for the diagnosis of a systemic type 4 allergic drug reaction which are: a history of drug ingestion, clinical morphology, positive patch test, appropriate patch test controls, resolution when drug is discontinued and positive provocative drug challenge (3). Our case fulfilled all these criteria. To our knowledge, this is the 1st patient reported to have developed eczema associated with the taking of tamsulosin.

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Allergic contact dermatitis from rectified camphor oil in Earex[®] ear drops

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Key words: allergic contact dermatitis; camphor oil; ear drops; medicaments.

Case Report

A 64-year-old woman presented with severe eczema of the ears, neck and upper chest following the use of Earex[®] ear drops (Seton Healthcare Group, Oldham, UK). She had no personal history of atopy, although there was a previous history of sensitivity to toiletries.

Patch testing was performed with European standard, preservatives, cosmetics and the hairdressing series, as well as with her own products including Earex[®] ear drops. She developed a + reaction at D4 to Euxyl K 400 (1.5% pet.) and ++ reactions to thimerosal (0.1% pet.), tea tree oil (5.0% pet.) and Earex[®] ear drops (as is).

Earex[®] ear drops contain only arachis oil BP, almond oil and rectified camphor oil, and further testing to these ingredients demonstrated a ++ reaction on D2 and D4 to rectified camphor oil (10% pet.) only.

Subsequently, a further 30 patients attending the patch test clinic were tested to the same rectified camphor oil as is. None developed positive reactions.

Discussion

Camphor oil is used as a perfumery ingredient in soaps, cosmetics and deodorants. It is also used, though more often in synthetic form, as a solvent in paints, varnishes, waxes and insecticides, as a masking agent for unpleasant odours and in a few Ayurvedic preparations which require a camphoraceous odour.

The only previous reports related to camphor allergy are from the use of 4-methylbenzylidene camphor and its derivatives. This substance is derived from synthetic camphor and used as a chemical sunscreen, which has the ability to cause both allergic and less commonly photoallergic contact dermatitis (1). To our knowledge, however, this is the first report of allergic contact dermatitis from rectified (i.e. purified) camphor oil, though camphor has been described as a cause of non-immunological contact urticaria (2). This case therefore highlights camphor oil as a rare cause of allergic contact dermatitis in a topical medicament.

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Contact dermatitis from geraniol in washing-up liquid

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Key words: allergic contact dermatitis; antimicrobials; fragrance mix; geraniol; washing-up liquid.

Fragrance mix (FM), a mixture of 8 different fragrance chemicals (cinnamic alcohol, α -amyl cinnamal, cinnamal, eugenol, isoeugenol, geraniol, hydroxycitronellal and oak moss), gives a positive reaction in 4–11% of patch-tested patients. Fragrances can cause allergic contact dermatitis as well as contact urticaria (1).

Case Report

We describe a 27-year-old male dentist, with a personal and family history of atopy, who had developed hand dermatitis in the preceding 5 months. This was partly responsive to treatment with very potent topical corticosteroid. The dorsum of his hands was more severely affected than the palm. He wore non-powdered latex gloves during his work and thought that this might have worsened his hand dermatitis, though there had been no improvement in his symptoms during a 2-week period of absence from work. There were no other precipitants or exacerbating factors identified, but he had changed his washing-up liquid in the months preceding presentation and admitted to not usually wearing household gloves.

Patch testing to an extended standard, dental and nursing series was negative except to FM and potassium dichromate. When patch tested to individual fragrance allergens, he had a positive response (+) to geraniol. Prick testing to latex on the volar aspect of the forearm was negative. Geraniol was identified as a constituent in the washing-up liquid that he used and as being present for its antimicrobial properties. He was advised to discontinue using this, and his hand eczema has since resolved. Based on this, we concluded that his hand eczema had been an allergic contact dermatitis from geraniol. We did not consider potassium dichromate to be a currently relevant allergen.

Comment

Epidemiological studies have described an increasing frequency of fragrance allergy and an association with hand eczema. Fragrance chemicals in domestic and occupational products can be relevant in terms of risk assessment for allergic hand eczema, particularly those that are intended for hand exposure. A study in which 59 domestic and occupational products were analysed using gas chromatography-mass spectrometry (GC-MS) concluded that geraniol was one of the 5 most commonly used fragrances in such products, occurring in those analysed as part of the study at a mean concentration value of 234.4 p.p.m. (2). This did not vary significantly from previously published GC-MS data pertaining to various cosmetic products and perfumes. Additionally, this study suggested that, when considering potential contact allergy to these product types, the investigator should consider fragrance allergens other than those included in FM, because

these may also occur in occupational and domestic products with greater frequency than in deodorants, fine fragrances, skin care products and children products.

Contact dermatitis and contact urticaria from geraniol have both previously been reported (3–5). This is the first report of a hand dermatitis occurring as a result of contact with geraniol as a constituent of a domestic product intended for hand exposure. This emphasizes the need to consider household products and the possibility of allergic contact dermatitis from them when assessing patients who present with hand eczema.

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