PRACTICAL DERMATOLOGY

Indications for Referral to a Skin Allergy Unit

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Abstract
Contact dermatitis is one of the most common reasons for consultation in dermatology. However, general dermatologists do not always appreciate the importance of patch testing. These tests should ideally be performed in specialist skin allergy units, most importantly in cases suggestive of contact dermatitis, severe acute dermatitis, chronic persistent dermatitis, and dermatitis affecting the eyelids, genital region or adjacent to venous ulcers. Eczematous changes in pre-existing skin lesions or lesions at atypical sites in patients diagnosed with atopic eczema should also be investigated. Finally, cases diagnosed as occupational dermatitis can be best managed by the workers’ health insurance scheme.

Indicaciones de derivación a una Unidad de Alergia Cutánea

Resumen
La dermatitis de contacto es uno de los motivos de consulta más frecuentes en Dermatología. Sin embargo, la realización de pruebas complementarias, especialmente las pruebas epicutáneas de contacto, puede ser menospreciada por el dermatólogo general. Idealmente la realización de pruebas epicutáneas se debiera realizar en Unidades de referencia de Alergia Cutánea, especialmente en eccemas que delimiten la figura de un contactante, eccemas agudos graves, eccemas crónicos persistentes y los localizados en párpados, área genital o alrededor de úlceras venosas. La eccematización de lesiones cutáneas previas, o la localización atípica de lesiones eccematosas en enfermos diagnosticados de eccemas endógenos también debieran ser estudiadas. Finalmente, aquellas dermatitis catalogadas como enfermedad profesional son manejadas más óptimamente por la mutua laboral propia del trabajador.

Indications for Referral to a Skin Allergy Unit

Eczema can be classified, generally speaking, as either endogenous or exogenous. The exogenous form, or contact eczema, can be further subdivided into 2 groups according to whether it is of irritant or allergic origin. The management of these 3 types is very different, and patch testing...
must be undertaken if we seek objective information that
rules out or confirms a diagnosis of allergic contact derma-
titis. Either the patient or the physician may consider
such tests to be problematic, however.1-3 Although the
efficacy and efficiency of patch testing have been clearly
demonstrated,4,5 doubts arise when the dermatologist sees
patients with eczematous lesions that do not seem to clearly
warrant investigation.4 In view of the fact that contact der-
matitis accounts for between 4% and 7% of the dermatology
caseload,7 this article sets out to explain the criteria for
making decisions about referral to a skin allergy unit in a
variety of situations.

Benefit and Interest: 2 Criteria

Performing patch tests or referring a patient to another
physician for such testing is a medical act and as such
should be guided by the criterion of what is beneficial for
the patient. To benefit a person is to do what is good for
that person, according to the dictionary of the Royal Span-
ish Academy.6 However, what is beneficial does not always
coincide with the patient’s, the physician’s, or the health
care administrators’ interests. All 3 parties ordinarily share
the same goals, but this will not always be the case, par-
cicularly in occupational medicine. Some patients receive
material benefit from their disease process through compen-
sation when they must leave their jobs or be absent for
medical reasons. Others insist on staying in the workplace
until they are eligible to receive an adequate retirement
pension. An employer or an occupational health insurer
may also have interests; likewise, a physician might wish
to increase the demand for a contact dermatitis unit or,
indeed, minimize the need for one and thus avoid order-
ing complementary tests for patients with a diagnosis of
eczema. In all such situations the criterion of patient benefit
must be primordial, taking precedence over the interests of
managers, physicians, or even over any nonhealth-related
interests the patient might express. This principle can be
clarified by examples. Suppose we suspect sensitization to
nickel or other metals on the basis of a patient’s medi-
cal history. Should we order skin allergy tests? If we apply
the essential principle of patient benefit, we would place
at one extreme a case in which the patient has com-
plained of an unrelated problem but we discover he or she
has a history of intolerance to jewelry. Will the patient
receive significant benefit from patch testing? At the other
extreme would be a patient with an intolerance to jew-
elry who must undergo a knee arthroplasty procedure in
which a metal prosthesis will be implanted. Even though
it is highly unlikely that the patient will have a reaction
to the alloys used in the device, if one were to occur the
resulting harm would be so great that it would be worth-
while performing the tests to have objective information
about which metals he or she is sensitized to before the
operation.9

Spanish legislation, recorded in the government’s Offi-
cial Gazette, distinguishes common health processes from
occupational ones, stating that “the occupational health
insurer that manages or collaborates in the protection of
occupational health shall write and issue a report to cat-
egorize the possible occupational illness.”11,10 In the case
of an occupational dermatitis, the patient’s benefit, in
terms of optimization of employment and possible future
compensation claims, will be more in keeping with current
law if he or she is followed by a dermatologist belong-
ing to the occupational health insurance provider. That
dermatologist will be responsible for referral to a skin allergy
unit according to the criteria discussed in this arti-
cle. In situations in which patients are not covered by an
occupational health insurer the skin allergy units of the
National Health Service will take responsibility; examples
of such patients would be the unemployed or those in
certain occupations in which different types of coverage
apply.10

Patch testing is relatively simple and can be carried out
with minimal equipment. The risk lies in focusing narrowly
on testing for contact dermatitis but not on solving the
patient’s problem. It would be absurd if the presumed ben-
efit a patient received, after spending 2 days with patches
in place and unable to wash the skin on his or her back for
5 days, were only to receive a report that warns against
coming into contact with certain substances whose names
are often unfamiliar. According to the criterion of acting
in the patient’s benefit, we should provide a report that
includes a diagnosis (eg, allergic contact eczema, irritant
dermatitis, dyshidrotic eczema, etc), lists the complemen-
tary tests performed, and indicates the significance of the
positive results found. We should also note that the patient
will remember best what the physician actually says dur-
ing the interview.11 Determining the relevance of positive
results (whether present, past, or uncertain) requires detec-
tive work by a dermatologist who has appropriately specific
training and whose knowledge is current.3,12-14 If we are
working within the Spanish National Health Service, the
ideal is to refer patients to dermatology clinics that have
skin allergy units with up-to-date information, trained per-
sonnel, test batteries with a sufficiently wide range of
haptenes, and the capacity to test for photoallergy.2,3,6,15
Beyond their purely clinical workload, these units are also
able to carry out epidemiologic and other research rel-
ent to the discipline.16 However, according to a white
paper on our specialty published by the Spanish Academy
of Dermatology and Venereology (AEDV),17 only 50% of pub-
lic hospitals in Spain have a contact dermatitis unit. We can
therefore suppose that many patients do not have access
to these tests, whether the reason is the type of care
they are given or the application of administrative crite-
rria. In such cases the panel recommended by the Spanish
Contact Dermatitis and Skin Allergy Research Group or the
thin-layer rapid-use epicutaneous (TRUE) test panel must
suffice. According to Saripalli and coworkers,18 however,
the TRUE test of 23 allergens can be considered complete
for only 25% of patients being studied. Whenever we are
unable to perform a full battery of relevant tests, we must
proceed with an open mind, attempting to complete the
study with products the patient uses or is exposed to, with-
out closing the case after the final reading of the patch
test panel. If we do not proceed in this way, we may con-
vey to patients a false confidence that will not be in their
interest.3,19

Depending on the reason for referring a patient to a skin
allergy unit, the benefit we are seeking to offer may be
diagnostic, therapeutic, or legal (Table 1).
Table 1  Indications for Referral of Patients to a Skin Allergy Unit.

<table>
<thead>
<tr>
<th>Indications</th>
<th>Subheadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflammatory skin processes confined to an area of contact with an agent</td>
<td>Inflammatory skin processes confined to an area of contact with an agent</td>
</tr>
<tr>
<td>or to an area where an agent has been applied</td>
<td>where an agent has been applied</td>
</tr>
<tr>
<td>Severe acute eczema</td>
<td>Severe acute eczema</td>
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<tr>
<td>Subacute eczemas that recur at the same location</td>
<td>Subacute eczemas that recur at the same location</td>
</tr>
<tr>
<td>Chronic eczemas that do not respond satisfactorily to treatment</td>
<td>Chronic eczemas that do not respond satisfactorily to treatment</td>
</tr>
<tr>
<td>Eczema on eyelids or genitals in nonatopic patients</td>
<td>Eczema on eyelids or genitals in nonatopic patients</td>
</tr>
<tr>
<td>&quot;Irritant&quot; hand dermatitis that does not improve with 3 to 6 months of</td>
<td>&quot;Irritant&quot; hand dermatitis that does not improve with 3 to 6 months of</td>
</tr>
<tr>
<td>appropriate treatment</td>
<td>appropriate treatment</td>
</tr>
<tr>
<td>Eczematization of venous ulcers</td>
<td>Eczematization of venous ulcers</td>
</tr>
<tr>
<td>Atopic patients who have eczematous lesions in the elbow or knee creases</td>
<td>Atopic patients who have eczematous lesions in the elbow or knee creases</td>
</tr>
<tr>
<td>that are less severe than their lesions elsewhere</td>
<td>that are less severe than their lesions elsewhere</td>
</tr>
<tr>
<td>Dyshidrotic eczema associated with lesions at sites other than the hands</td>
<td>Dyshidrotic eczema associated with lesions at sites other than the hands</td>
</tr>
<tr>
<td>or feet</td>
<td>or feet</td>
</tr>
<tr>
<td>Eczematization after treatment of any skin lesion</td>
<td>Eczematization after treatment of any skin lesion</td>
</tr>
<tr>
<td>Increased inflammation of a skin lesion treated with topical corticosteroids</td>
<td>Increased inflammation of a skin lesion treated with topical corticosteroids</td>
</tr>
<tr>
<td>Support for managing adherence</td>
<td>Support for managing adherence</td>
</tr>
<tr>
<td>Legal or work-related reasons</td>
<td>Legal or work-related reasons</td>
</tr>
</tbody>
</table>

* Additional situations not reflected in the table may also lead to referral to a skin allergy unit. If referral to a specialized unit is not possible, more limited patch testing should be carried out despite the drawbacks described above.

Indications for Diagnostic Referral

The most common reason for sending a patient to a hospital-based contact dermatitis clinic is to reach an etiologic diagnosis that explains the clinical picture, that is, to distinguish between irritant and allergic contact dermatitis and, if the patient’s condition is allergic, to determine the allergens causing the reaction and relate the detected sensitizations to the patient’s original complaint.14 Expressed in medical terms, one orders tests to determine the main causes of the skin condition, although we should also consider the possibility that a patient’s quality of life may even improve after negative results of patch testing.20-22 A final point to remember is that age is not a limiting factor for patch testing. Age only presents logistical problems for performing a complete test battery; examples would be the available body surface area in infants and disability in the elderly.23-26

Figure 1  The shape of a lesion can lead to suspicion of allergic contact eczema. In this case, the skin was sensitized to the adhesive used to attach an electrocardiographic lead.

Diagnostic Referral Based on Lesion Morphology

As the name suggests, contact dermatitis is caused by external substances that come into direct contact with the skin. As a result, the shape of an object whose contact with the skin leads to irritation is often faithfully reflected by the inflamed area (Fig. 1). However, processes other than irritant or allergic contact eczema may also leave a telltale pattern, so each case should be fully assessed in a specialized unit. Among such processes are contact urticaria, contact purpura, some granulomatous reactions, and some lichenoid lesions (especially those on mucosal surfaces).

Figure 2  Severe acute allergic eczema caused by a nonsteroidal anti-inflammatory cream was suspected.
particularly vulnerable target. Haptens may be airborne or carried to eyelids on the patient’s hands. Therefore, allergic contact dermatitis should be suspected whenever eczematous lesions on any location are found in association with eczema on the eyelids. A similar but less common situation is that of genital eczema in association with other lesions at a distance. Sensitization to topical treatments the patient is using (Table 2) should be suspected when eczema forms on varicose ulcers.6,14

Chronic hand dermatitis deserves special consideration. The clinical picture should first be noted and categorized and treatment prescribed. Tinea should be ruled out, whether on the basis of clinical signs or by mycology. Hand eczemas are usually multifactorial in origin, but the irritative component plays a major role. Once the patient’s case has been fully studied, treatment—which should include insistence on protective measures (barriers and lotions)—should be started. Patch testing can be considered after 3 to 6 months of adequate treatment: if the eczema has not improved after this period, the possibility of a sensitivity reaction that is causing or aggravating the dermatitis (Fig. 3) should be investigated.28,29

Diagnostic Referral in Endogenous Eczema

In cases of chronic eczema initially categorized as endogenous, contact dermatitis should be investigated if the distribution is atypical. Examples would be patients with severe eyelid lesions in whom sensitization to topical medications should be assessed, or atopic patients with lesions that are more severe in the axillae than in elbow creases in whom sensitization to textile components should be ruled out. Patients diagnosed with dyshidrotic eczema who have lesions on locations other than palms or soles should also be evaluated. Acute worsening of lesions or a lack of response to appropriate treatment should suggest a possible diagnosis of sensitization to components of the topical treatments being used, thus suggesting the need for further investigation (Table 1).5,7,20

Therapeutic Indications

A correct diagnosis will lead to therapeutic benefits for the patient; however, there are also situations in which the act of performing patch tests can facilitate clinical management itself. Although investigating sensitization without first taking an adequate medical history to guide the diagnosis of possible contact dermatitis is a poor approach to take, it might sometimes be appropriate to proceed in this way in special cases in order to involve the patient in the process. Thus, patch testing, in which the patient plays an active role, can favor adherence to therapy. Woo and coworkers11 demonstrated that quality of life improved after negative patch test results.

It is also important to order patch tests when the lesions of a chronic dermatosis worsen. This complication may be the result of secondary bacterial infection or an allergic reaction to topical medications (Fig. 4). In such cases,
sensitization to corticosteroid creams may be to blame, as the anti-inflammatory effects of these creams can cause latent skin conditions to flare up.7,14,31

**References**

10. Real Decreto 1299/2006 por el que se aprueba el cuadro de enfermedades profesionales y en el Sistema de la Seguridad Social y se establecen los criterios para su notificación y registro. BOE núm. 302 de 19 de diciembre 2006. p. 44487–546.


