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Article accepted on 2/23/2011

Globalisation and allergy

Globalisation brings patients more and more into contact with products or food from other cultures or countries. Europeans may be confronted with allergens not yet known in Europe – such as dimethylfumarate – responsible for contact allergy epidemics. Moreover, “low cost” goods, not always legally imported into Europe, sometimes may lead to European legislation being circumvented and thus bring our patients into contact with components that have been banned from manufacturing processes or strongly regulated, such as nickel in jewelry or telephones, some colouring agents in clothes or preservatives in cosmetics. Disinfection measures for freight containers arriving from other continents into our harbours lead to fumigants and other toxic products contaminating the air and the transported products or goods. Globalisation can not only elicit contact allergy but also airborne contact dermatitis or food allergy. The aim of this paper is not to make an exhaustive review of cutaneous allergic problems elicited by globalisation, but to illustrate this new worldwide problem with a few meaningful examples.

Key words: airborne contact dermatitis, contact allergy, food allergy, globalisation.

The term “globalisation” has two meanings:
i) the increase in the flow of goods, services, labour, technology and capital on an international scale. It also describes the growing interconnectedness of the various parts of the world, which tends to turn the planet into a single market under the effect of the acceleration of exchanges, the development of new information and communication technologies and means of transportation.
ii) The term “globalisation” can also mean the process of setting up worldwide networks of goods, services and data relying on a world market, worldwide firms and a juridical and institutional frame.

Thus globalisation brings our patients more and more into contact with products from other cultures or regions, often far away, be they food products or manufactured goods. This is probably because people have a taste for exoticism, or out of mere curiosity, or, as regards manufactured products, essentially because they are cheaper to manufacture elsewhere than in Europe, particularly in China and South-East Asia. These products are distributed all over the world and it is increasingly frequent to find the same products in New York, in Singapore, or in the world's duty-free shops as it is in Paris, London or Berlin. Conveying and stocking them often require using or applying products to guarantee their preservation or the absence of proliferation of microorganisms likely to alter or damage them. Thus Europeans may be confronted with allergens so far unknown in Europe, such as dimethylfumarate. Moreover, more or less legally imported “low cost” goods brought into Europe may sometimes lead to European legislation being circumvented and thus bring our patients into contact with components that, in our countries, have been banned from manufacturing processes or strongly regulated, such as nickel in jewelry or

telephones, some clothes colouring agents, such as disperse orange 3, or preservatives in cosmetics, such as dibromodicyanobutane. Finally, some components in cosmetics and sun filters, such as oxybenzone or para-aminobenzoic acid are less used in Europe but still very present in the US, for instance.

In this respect, we shall mostly broach the effects of globalisation on allergen exposure in Europe. We will barely mention the problems that may be caused by travelling to distant countries, as they have already been tackled in other presentations at GERDA and elsewhere. Although medicines bought in Europe pose no problem, or pose problems that are known to allergic patients, counterfeit medicines (10% of the world pharmaceutical market) are an even greater threat to allergic patients and are to be found everywhere in tropical regions.

The question of more or less traditional exotic treatments imported into our country by patients from other cultures or continents could in itself be the subject of a whole paper. It is impossible to be exhaustive on such a vast subject, therefore we shall only mention illustrative examples.

Allergic contact dermatitis

Chinese chair dermatitis

Since 2006, an epidemic of several hundred cases of contact dermatitis rashes in people who purchased leather or microfiber armchairs imported from China has been reported in several European countries, including the UK, Finland and France. This was caused by the presence, inside the armchair foam, of sachets containing dimethylfumarate (DMF) [1-3].

Indeed, DMF is a “cheap” powerful antifungal agent commonly used in China to prevent the contamination of armchairs and sofas stored during the very wet period of the monsoon. It is a volatile sensitising chemical contained in sachets placed between the frame and cushions of the armchairs but whose volatility leads to a rather rapid penetration of the fabric of the armchairs. DMF is an extremely dangerous agent, it should not come into contact with the skin and should not be rejected in the environment. This type of importation pathology is highly typical of the problems globalisation may cause, i.e. importing an agent into the European Community which is not in use there.

The lesions may also have misleading lichenoid, lymphomatous or even mycosis fungoides-like aspects [4]. Before the allergen and the source were known, many patients were misdiagnosed, had to be hospitalised and to undergo many procedures. The Revidal-Gerda network enabled doctors to provide these patients with optimal treatment and to limit diagnosis wandering.

Patch tests carried out with samples from the armchair textile material were positive. DMF testing elicited strong irritant reactions that led to advising concentrations of 0.1% and 0.01% in petrolatum. The latter reaction is the more reliable as it is the less irritant. Fumarate is sometimes used to treat psoriasis in Europe [5]. This medicine may have been responsible for immediate and delayed reactions [6]. A recent study shows that most patients sensitised to DMF also have positive patch tests to acrylates [7]. Patch testing with DMF in concentrations of 0.1 to 0.00001% was carried out in 37 patients. Diethyl fumarate (DEF), diethyl maleate (DEM), dimethyl maleate (DMM), ethyl acrylate (EA), methyl acrylate (MA) and methyl methacrylate (MMA) were also tested with a dilution series.

The lowest concentration of DMF eliciting a reaction varied between 0.0001% and 0.1% and all but four patients reacted concurrently to DEF. DEM was positive in 21/37 patients and DMM reactions were seen in all 9 patients tested. EA elicited positive reactions in 13/37 patients and a positive MA reaction was seen in 7/37 patients, 2 of whom also reacted to MMA. Concurrent reactions to acrylates are also seen in the patients who react to lower (0.001% or less) DMF concentrations: these are probably cross reactions.

Dimethylfumarate is also used to preserve clothes, shoes and boots from China. A case of superacute contact allergy to dimethylfumarate in a sachet in a boot of Chinese origin was reported by Vigan *et al.* [8]. A first rash was interpreted as the result of sensitisation to this allergen at first contact with the boot. A second rash appeared within four hours after second contact with the boot, 10 days after the first contact. This is similar to superacute reactions to hair dyes or DNCB. They appear rapidly for delayed hypersensitivity reactions (DHR) and are the clinical expression of a strong sensitisation to a strong allergen. This rash is accompanied by biological signs of rhabdomyolysis, which is very unusual, but CPK is not determined routinely in acute contact dermatitis.

Should such a DMF sachet be found, it must not be thrown away and its contents must not be applied on a patient's skin for diagnostic testing but it should be returned wrapped in sealed plastic to the supplier of the object in which it was found. Similar cases have been published concerning leather boots made in China and containing DMF, for instance in Portugal [9]. DMF was confirmed by gas chromatography-mass spectrometry (GC/MS). Some

European brand shoes or boots are in fact imported from China and DMF sachets have to be looked for carefully in the box or even inside the shoes or boots. Since May 2009, the European Commission has banned any trade with products containing DMF concentration higher than 0.1 µg/g [10].

European Union member states have recently banned the importation and sale of goods containing dimethylfumarate (<http://europa.eu/rapid>). Recently, an Italian team found dimethylfumarate in a garment [11]. A 40-year-old man working in the metal industry developed a severe eczematous dermatitis involving his thighs, buttocks, genitals and inguinal folds. This rash appeared 3 weeks after he started wearing a new pair of trousers worn when at work and provided by his employer. He was temporarily removed from work and there was complete remission of skin lesions within 5 weeks, but they relapsed a few days after returning to work. Patch testing found contact dermatitis to a swatch of cloth from his work trousers and to dimethylfumarate. Chemical assessment (chromatography) of the incriminated trousers revealed the presence of dimethylfumarate. The patient resumed work with new trousers and there was no relapse of the allergic reaction. The spokesman of the industrialist who had manufactured the work trousers the patient had been allergic to, declared that they had been made in the European Union but with a fabric of unknown origin.

Nickel

Nickel sensitisation is frequently triggered by repeated contact on the skin of objects releasing nickel in too large quantities such as fashion jewellery, belt buckles, buttons, etc. Researchers have shown that nickel sensitisation could occur when an object in contact with the skin released over 0.5 µg of nickel per cm²/week. In 1994 and then in 2004, the European Union regulated nickel exposure (the nickel directive) and banned the placing on the market of objects releasing over 0.5 µg of nickel per cm²/week [12].

For the past few years, cell phones have been widely used in Europe and several cases of facial (cheeks and ears) contact dermatitis have been described [13]. Other localisations have even been reported, such as the thighs, if the mobile phone is regularly placed in trouser pockets. The various tests showed that they were due to the nickel released by the metal part of the mobiles. This was easily confirmed by dimethylglyoxime testing [14]. These allergies are likely to have been underestimated. However, cell phones did not fall under “the nickel directive”. In 2008, a Danish study found that 4 in 22 mobile phones made by two Scandinavian industrialists released over 0.5 µg of nickel per cm²/week [15]. In January 2009, the Danish Minister of Environment asked for mobile phones to fall under the scope of “the nickel directive”, which was quickly agreed to by the European Commission [16].

Piercings and earrings containing nickel are traditionally responsible for many cases of nickel sensitisation. For this reason, European legislation has limited nickel release by post assemblies inserted into pierced ears to 0.2 µg/cm²/week [17]. This new restriction compared to that of 1994 had a convincing effect on the Danish female population since the prevalence of nickel allergy decreased

from 15.6% to 6.9% depending on whether the piercing was made before or after the new directive [18]. Despite this directive, it seems that nickel release is still excessive ($>0.5 \mu\text{g}/\text{cm}^2/\text{week}$) in many jewels sold in Scandinavia and Italy [19–21]. This confirms the importance of frequent random controls on this type of products sold in stores. In the USA, there is currently no regulation on nickel release from consumer products, neither is there in Thailand. In China, there has been a nickel directive since 2002. It emulates the 1994 EU nickel directive. China and Thailand are the largest producers of “cheap” jewellery. It can be purchased on the spot but it is also exported all over the world. The Hamann study [22] tested for nickel in 557 pairs of earrings sold in two Chinese cities (Beijing and Chengdu) and three Thai cities (Bangkok, Phuket and Hat Yai). Overall, 30% of the jewels, regardless of their cost or origin, contained nickel as a major component. They were tested using the dimethylglyoxime (DMG) spot test and 30% of DMG test negative earrings were examined with X-ray fluorescence spectrometry and showed that nickel was a minor constituent. A similar study was carried out by a San Francisco (USA) team who tested 277 earrings, 30.7% of which were also DMG positive [23]. Moreover, the dimethylglyoxime spot test has a high specificity (97.5%) but a modest sensitivity (59.3%), thus the prevalence of jewels or consumer items that contain an amount of nickel above that of the 1994 European nickel directive is probably underestimated [24].

Nickel can also be released in the bloodstream during infusions with metal catheters containing nickel. This release can cause a papulovesicular rash in the following hours, particularly in the postoperative period. This was shown by Raison-Peyron with Optiva® catheters made in the USA. This diagnosis is noteworthy as such rashes can be mistakenly diagnosed as an allergic reaction to infused drugs. There again, it would prove useful to apply the European nickel directive to medical use products [25].

Paraphenylenediamine (PPD)

Temporary henna tattoos have become increasingly popular among western tourists during the summer holidays, particularly among children, teenagers and young adults. This trend was imported into Europe from other continents and tattoos have often been drawn on our beaches as a seasonal summer activity. They are still all the rage in holiday places, particularly seaside resorts in Africa and in the Indian Ocean. It takes several hours for natural henna (*Lawsonia inermis*) to be absorbed into the skin, it imparts an orange-brown colour and causes very few allergic reactions. Paraphenylenediamine (PPD) is added to henna (black henna) to shorten the time of application and enhance the colour. It is responsible for most of the complications reported after temporary henna tattoos: localised or generalised contact dermatitis, hypertrophic or keloid scars, hyper- or hypopigmentation. Unlike permanent hair dyes, temporary tattoos contain no oxidants, which makes PPD active for much longer. The prolonged persistence of a strong allergen on the skin is likely to be responsible for the highly sensitising properties of black henna tattoos. Immediate hypersensitivity reactions (urticaria, angio-oedema or anaphylaxis) are much less common but potentially lethal. PDD allergy induces intolerance to permanent hair dyes

and can induce cross-reactivity with other substances such as textile azo dyes. Hair professionals who had the bad idea of having tattoos with PPD mixtures and who have become allergic to PPD and its derivatives must most of the time consider occupational retraining. Patch testing for PDD must be performed at a very diluted concentration (0.01% in petrolatum) so as to avoid strong reactions or active sensitisation. In the absence of any legal control of henna tattooing practices, prevention requires yearly-renewed campaigns of information to European consumers [26–32].

Texeira *et al.* [33] reported extremely severe dermatitis on the eyelids and periorbital regions as well as conjunctivitis after a female patient had a beautician dye her eyebrows and eyelashes with a dye containing PPD. The patient had previously been sensitised through her stockings containing azo-dyes. This case report underlines that, even in cosmetics, legislation on PPD is not applied. Indeed, the FDA has prohibited the marketing of hair dyes for eyebrow and eyelash dyeing since 1938 due to severe eye injuries, some of which even lead to blindness. According to European legislation, PDD is allowed with maximum concentration of 6% in hair dyes. The packaging must bear the following warning statements: “can cause an allergic reaction”, “contains diaminobenzenes” and “do not use to dye eyelashes or eyebrows” [34]. It seems that some cosmetic products sold in Europe do not bear the mention “do not use to dye eyelashes or eyebrows”. Moreover, as this type of product can easily be purchased on internet, it makes controls about their origin and composition much more difficult to carry out. Finally, there are, unfortunately, counterfeit products which contain PPD concentrations far above the 6% limit.

Plants

The plants with higher risks for sensitisation are those of the anacardiaceae family which contain a very powerful sensitising substance called *urushiol*, whose name is derived from the Japanese word used to refer to the sap of the lacquer tree. A single contact with this allergen is enough to trigger severe acute dermatitis. Fortunately, these plants are not found in Europe but are very common in the wild in America, particularly in the United States and in Canada. In addition to the lacquer tree in Japan, other plants also belong to this family: shrubs such as *poison ivy* and *poison oak* – of the genus *Toxicodendron* – whose eradication is compulsory in the United States, and trees such as *anacardium*, which yields cashew nuts, and the mango tree. *Ginkgo biloba*, the forty ecu tree that can be seen in our garden, can cross-react with poison ivy [35]. It may be feared that one day this type of plant could invade Europe following the contamination of a cargo containing earth or vegetables, or following illegal importation of plants by a deviant botanist... We should indeed underline that poison oak, poison ivy and sumac are the main causative agents of occupational dermatitis in North America [36].

Airborne allergies

Parthenium hysterophorus

This compositae plant (asteraceae) is called *Camomille z'oiseaux* (bird camomile) or *Herbe blanche* (white grass)

in Reunion Island. It is also called “yaws herb” because it is used in this terrible disease which is endemic in hot and wet tropical areas. *Parthenium hysterophorus* is an excellent example of airborne contact allergy to a plant. It cross-reacts with other asteraceae plants (chrysanthemum, helianthus, *Xanthium strumarium* or cocklebur, a parasite of sunflowers) [37]. It is a very hardy and invasive plant which, through contaminated cereals from the USA, probably contaminated India where it has found excellent conditions of proliferation since 1956, but it has also contaminated Africa and Australia. It originated from Central America, notably Mexico. Currently, it seems that *Cassia Uniflora*, a leguminous undershrub, is the only way to check the growth of *Parthenium hysterophorus*. *Parthenium hysterophorus*, a fruit of cereal globalisation, has become an agricultural scourge and one of the main causes for contact allergy in India. Indeed, it seems that 56% of occupationally exposed persons become sensitised. The exact mechanism of sensitisation is still unknown, but the trichomes, pollens and plant dust contain sesquiterpene lactones causing airborne contact dermatitis [38].

Freight containers

Millions of freight containers are shipped all over the world. So as to prevent the entry of unwanted animal or plant species, or dangerous microorganisms, many countries have imposed very strict disinfection measures for freight unloaded in their ports. One of the commonest requirements is for containers to be fumigated using toxic gases, including pesticides. Now, the substances used represent a risk to human health for the port staff but also for the end users of the imported goods. Budnik and Baur [39], at the Central Institute for Occupational and Maritime Medicine of the University of Hamburg (Germany), conducted a series of tests in the ports of Hamburg and Rotterdam (Netherlands). In particular, they tested over two and a half years the quality of the air sampled from over 2000 containers unloaded in these two ports. They found that, nowadays, not only does fumigation appear to affect almost all containers used for international trade but that the gases they release are far from being harmless. The fumigation gases most frequently measured in containers were 1-2-dichloroethane (33% to 50% of containers) and bromomethane (22-28%). 70% of containers are contaminated with toxic chemicals above chronic reference exposure levels; 36% even exceed acute reference exposure level thresholds. Benzene and/or formaldehyde contamination is 4 times as high as that of fumigants.

Moreover, these fumigants and the other toxic products found in the air within the containers, such as benzene and toluene, also contaminate the transported products or goods, penetrating into them and easily settling there. They may have a half-life of about a month or even several months, which represents an additional threat. What is more, there are no warning signs on any of the containers. Indeed, the results show that samples of foodstuffs, mattresses, electric devices, clothing and, in particular, shoes, were contaminated with both fumigants and other chemicals.

The health consequences of the presence of these gases are, in addition to skin allergies, airway irritation, even in low doses. They can also lead to respiratory difficulties and

cause asthma attacks. Higher concentrations can lead to pneumonia, even pulmonary oedema.

Aeroallergens

When changing ecosystems, travellers with allergic conditions may happen to come into contact with allergens. House dust mites are commonly-encountered perennial allergens. Some species living in tropical areas, such as *Bloimia Tropicalis*, are highly sensitising. Seasonal allergies to pollens can re-occur at other periods of the year depending on the place of travel. In the southern hemisphere, the seasons are reversed, which accounts for flowering being shifted compared to our latitudes. Gramineae pollinosis occurs in March in North Africa and in July in Scandinavia. In South Africa, symptoms can persist for up to ten months, only sparing patients in the winter, i.e. July and August. In North America, the flowering of ragweed (*Ambrosia artemisiifolia*) occurs from August to October. Japan cedar pollen crosses with that of the green cypress. Bees and wasps have perennial colonies in tropical environments, which means that sensitised travellers must carry a first-aid kit with them, whatever the period of the year. Ant stings can trigger anaphylactic reactions. Lepidopterism is caused by contact with the urticating scales of some tropical butterflies [40].

Geographical diffusion

Ragweed, accidentally introduced to Europe in the 19th century, has an increasing sensitisation prevalence and is another example of the harmful consequences that invasion by foreign species may have. *Artemisia-leaved ambrosia* (*Ambrosia artemisiifolia*) originates from North America. It appeared in France in 1863 and is likely to have been introduced by a batch of fodder seeds. Ragweed is particularly well-established in the Rhône-Alpes region (south eastern France). *Ambrosia* seeds do not have the usual devices that enable them to be blown by the wind or dispersed by animals. However, they can be carried by water and they really stick to the earth carried under shoe soles or by lorry and tractor tyres. Thanks to the national and regional development schemes undertaken since the 1950s, among others the Rhône river basin management plan, *ambrosia* has invaded areas where the climate was favourable to its development. Indeed, in the Rhône-Alpes region, about 6 to 12% of the population is sensitised to *ambrosia* and it represents 30 to 40% of cases of pollenosis [41].

Pets

As regards “domestic” pets, imagination no longer seems to have limits and, apart from “ordinary” animals such as cats and dogs, guinea pigs, hamsters, mice and ferrets, we now see as new pets other rodents, for instance chinchillas, which are native to the Andes mountains and may induce rhinitis and asthma. The bites from North American jerboas, Mongolian gerbils, as well as prairie dogs, can cause anaphylaxis. All these animals are more or less venomous, not adapted to our climate, dangerous and sometimes released into the wild when their owners find they have become a nuisance [42].

The ravages of food globalisation

The last century has witnessed a real revolution in eating habits, which is thought to be partly responsible for the dramatic increase in food allergies in the population. More and more often, the patient, before leaving for faraway destinations, may already have had contact with tropical fruit, vegetables and dishes, including the most sensitising ones (peanuts, kiwis, avocados, bananas, celery, seafood, various sauces containing soya, nuoc mam, glutamate etc.) as they are increasingly consumed in Europe. Fast food restaurants and fashionable exotic sushi restaurants are revolutionising our French cuisine by replacing regional recipes with industrial food, imported foodstuffs, condiments and herbs and more or less raw seafood, associated with sweet and sour or piquant sauces which had barely been used in France up to the early 21st century.

Nowadays, France has a large number of people allergic to cashews: it is an allergen that is strongly emerging, so much so that it is almost more frequent than peanuts. It often strikes young children and, in one case in three, cashews have cross-sensitivity with pistachios [43].

As regards the internationalisation of agri-food trade, it is true that sesame allergy was not seen a decade ago but, ever since fast food restaurants appeared, cases of allergy to this trophallergen have been on the rise [44, 45]. There is an increasing number of cases of allergy to Brazil nuts, particularly in children, with reported cases of anaphylaxis [46, 47]. Consuming raw or soused fish may not only expose people to fish and seafood allergy but also to type 1 allergies to parasites such as *Anisakis simplex*. The latter can be a parasite of many species of fish such as rays and anchovies and can cause immediate (asthma, anaphylaxis) and delayed (protein contact dermatitis, eczema) allergic reactions in fish consumers but also in fishermen and fishmongers [48]. Other recently imported food allergens into Europe have led to the report of first time allergic incidents, for example, a case of urticaria with angio-oedema and anaphylactic shock to the Chinese pomelo was reported by Guillet [49]. Pulp prick-tests are positive. All the other citrus fruits are negative. The Chinese pomelo (Shatian pomelo) is a variety of citrus fruits, easy to cut and eat, softer and bigger than an ordinary grapefruit, and is a newcomer among imported exotic products.

Directive 2003/89/CE of the European Parliament and of the Council of November 2003 [50] amends Directive 2000/13/CE as regards indication of the ingredients present in foodstuffs, so that patients suffering from food allergies should be provided with "more comprehensive information" through the labelling. It mentions the most common allergens but does not classify some of them as dangerous allergens. This directive confirms today's knowledge but cannot be used to detect new allergies. Moreover, if the ingredient constitutes less than 2% of the product, the list of components is not required if they are not on the list of allergens, or if they are spices or herbs. Finally, in the food industry, according to the laws of the market, suppliers vary in time and accurate information on the origin and composition of ingredients is not necessarily known to industrialists; traceability of raw materials from developing countries in particular is very difficult. Finally, there are cases of incidental cross-contamination, for instance

by non-cleaned or poorly-cleaned packaging that has previously contained other food. A packaging line can be used to pack different types of food.

Depending on where an industrial brand food is manufactured, its composition may vary from one country to another, for instance, such is the case with Coca ColaTM, which has more or less sugar, or with Mc DonaldsTM products.

In the countries of the Mediterranean area, particularly Spain and Italy, peach allergy often triggers severe generalised anaphylactic reactions. However, in the North of Europe, with this type of allergy, reactions are generally mild (itching sensation around the lips). The responsible allergens are defense proteins which plants synthesise in response to an attack by phytopathogenous fungi. Preliminary results of immunoprints and Elisa measurements of LTP concentrations in "organic" and "non-organic" fruit suggest that some "organic" fruit (apples, plums) has a higher LTP content whereas other "organic" fruit (peaches, nectarines) has LTP content similar to that of "non-organic" fruit. The discrepancies observed clearly depend on the cultivating conditions (more or less harsh attacks by phytopathogens, climatic changes more or less favourable to these attacks) "organic" fruit has to face before harvesting [51].

Immediate allergy to pine nuts has been described, particularly in Mediterranean countries, and there is even a specific Rast. It can cause urticarial or anaphylactic reactions [52]. Eating pine nuts can also cause serious taste disturbances that can last several days or weeks. The described effect is a bitter or metallic taste in the mouth within 48 hours after pine nut ingestion. The pine nuts involved are all from China or Pakistan and are thought to be smaller and rounder than others, but not all pine nuts from China cause these symptoms. The cause has not been determined yet, triglycerids might be incriminated. Analyses on pesticides and heavy metals have been negative so far. Pine nuts do not seem to be toxic and only cause slight disturbances. This was described in Belgium in 2000 [53], but in France, poison centres have only been recording cases since July 2008. Hundreds of "victims" have been reported. This condition is also known in the USA as an emerging phenomenon with pine nuts but also with sauces such as "pesto", as it contains pine nuts, and is called "cacogeusia" or "pine mouth" [54]. It is not a real allergy but is also an example of the ravages of food globalisation.

Conclusion

Though globalisation is a source of potential profit on a commercial and cultural level (but this is a highly controversial issue as well), it is also an obvious source of complexity for allergologists. Though European legislation tends to limit risks of allergy for European patients, the dramatic increase in the importation of manufactured products, foodstuffs, even animals from other continents, represents many new sources of allergens or ways of circumventing European legislation. Purchases on the internet and counterfeiting pose other types of problems. Should we, for all that, become protectionist? This has more to do with politics

or philosophy than with allergology. Let us keep an open eye so as to quickly detect new allergological epidemics. Such is the role of networks such as Revidal-Gerda, which has shown on several occasions how perfectly it works. ■

This review article is part of a series of papers published by experts from GERDA, the French study and research group on contact dermatitis



Disclosure. Acknowledgements: The GERDA thanks Basilea, Pierre Fabre and Unilever for their institutional support for publication of this article. Financial support: none. Conflict of interest: none.

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