Dia 3. Otras enfermedades inflamatorias

Dr Antonio Martorell

Servicio de Dermatologia
Hospital de Manises, Valencia

antmarto@hotmail.com
@drmartorell
dr.antoniomartorell
OTHER DISEASES

8 remarkable topics
NEW TECHNOLOGIES AND PATIENT AWARENESS
Potential of high-frequency ultrasonography in monitoring psoriasis

Andreea Nicoleta Boca¹, Mihaela Cristina Somlea², Roxana Flavia Ilies³

1 Department of Pharmacology, Toxicology and Clinical Pharmacology, Tulcea Academy - University of Medicine and Pharmacy, Tulcea Academy, Tulcea Academy
2 Department of Toxicology, Tulcea Academy - University of Medicine and Pharmacy, Tulcea Academy, Tulcea Academy
3 Department of Medical gardenia, Tulcea Academy - University of Medicine and Pharmacy, Tulcea Academy, Tulcea Academy

Psoriasis
- Chronic inflammatory condition
- Monitoring of psoriasis plaques

High frequency ultrasonography (HF-USG)
- Non-invasive
- Easy to use
- Means to quantify inflammation, thickness, echogenicity

Case presentation
- 45 year old female patient, rural area
- Severe psoriasis (PASI 36.2)
- Psoriasis of the scalp
- Arthopathic psoriasis
- Comorbidities - type I obesity
- Inadequate response to previous treatments:
  - Methotrexate (15mg/w), Sulfasalazine (2g/d)
  - Cyclosporine (250mg/d)
  - Infliximab (400mg/2m), Adalimumab (40mg/2w)
  - Etanercept (50mg/w)

- Imagistic assessment during washout period
  - HF-USG using DermaLab Skin Analysis technology, 2MHz transducer
  - Nonlesional and lesional analysis

- Pending treatment with Ixekizumab

Conclusions
- LEB-ultrasonographic parameter for quantifying inflammation
  - LEB of nonlesional skin 0 um vs lesional skin 158 um
- Skin thickness may quantify skin atrophy induced by topical corticoids
  - Nonlesional thickness 1106 um vs lesional thickness 764 um
- HF-USG may prove a valuable tool in evaluating psoriasis plaques
The Role of Neuroimmune Interaction in Pathophysiology of Granulomatous Rosacea

Introduction
Rosacea is a chronic inflammatory disease that manifests various clinical features such as erythema, papules, pustules, and telangiectasia which repetitively flares and remits. According to the grading system recommended by the International Rosacea Society (IRS) Expert Committee in 2004, the subtypes of rosacea are divided into clinical features as erythematotelangiectatic rosacea (ETR), papulopustular rosacea (PPR), phymatous rosacea, acne rosacea, and one variant as granulomatous rosacea (GR). Granulomatous rosacea has been categorized as a separate disease variant principally because of its unique histopathologic findings, although it expresses different clinical presentations. Despite the active research on the pathogenesis of the rosacea, the correlation of the various cells involved in the immune system, bacteria, fungi, and lasers by each subtype is not yet well known. In this study, we investigated the difference in the expression rate of Toll-like receptor 2 (TLR2), neutrophil markers, and mast cells in the ETR, GR, and normal skin, and examined their role in the etiology of each subtype.

Materials and Methods
From January 2007 to December 2010, the patients who visited the Department of Dermatology, Tohoku University School of Medicine were recruited. 12 patients with ETR and 12 patients with GR were included. Rosacea was diagnosed according to clinical features and histological findings. Clinical and epidemiological information was obtained by electronic medical records (EMR). In this study, the authors investigated the diagnostic, classification, and severity according to the National Rosacea Society and classified only one subtype as the most prominent when two or more subtypes were satisfying one patient.

Results

Discussion
According to our results, the expression of M2C was higher in GR and ETR than normal, and GR showed higher expression of M2C than ETR. These results suggest that GR occurs at a later stage than the other subtypes and occurs when neuroimmune infiltration aggravates. In our study, the mean duration of GR (3.2 months) was longer than that of ETR (0.2 months), even though the difference in the expression of each cell was not statistically significant. Further studies checking the correlation between neuroimmune infiltration and GR are needed to confirm the suggestion. Our results also showed that the increased "T" expression in the skin of patients with granulomatous rosacea in comparison with healthy skin. Increased "T" expression may be responsible for abnormal expression of IIFD alpha-kinin, both of which are important in rosacea. In this study, we investigated the expression of TLR2 in GR, confirming the involvement of the K3K-alpha-kinin cascade in the pathogenesis of GR. In this study, immunohistochemical analysis of 12 cases showed the highest NPs expression in the GR subtype; additionally, the expression of NPs in the GR group was higher than that in the control group but this difference was not statistically significant. This might be correlated with the clinical symptoms of the GR subtype, in which neutrophil infiltration seems "poking, burning, pain" prominent; the GR subtype exhibits a wide spectrum of clinical manifestations. This study has a few limitations: the number of casecontrol group, "et al., is limited, and a large-scale immunohistochemical study is needed to confirm the results of this paper regarding the pathophysiology of GR. In addition, the concentration of the released neuropeptides is too high to be detected via immunohistochemistry, and quantitative analysis would be required.

References
(TLR2), neuromediators, and mast cells in the ETR, GR, and normal skin, and examined their role in the etiology of each subtype.

Table 2. Quantitative analysis of immunohistochemical staining (number of pixels per image)
* TLR2: Toll-like receptor 2   MC: Mast cell tryptase   NF: Neurofilament

Rol de las catelicidinas y de KLK5?
The Role and Relationship of Plasma D-dimer Level and Autologous Serum Skin Test in the Chronic Spontaneous Urticaria

Introduction

Autologous serum skin test (ASS) is thought to identify chronic urticaria (CU) patients who have an autoimmune/parasitic disease. It has been reported that the severity of chronic urticaria (CU) may be associated with d-dimers, and patients with CU often have other autoimmune diseases, including autoimmune thyroiditis. The aim of this study was to evaluate whether the d-dimers, total IgE, and autoimmune markers such as anti-TPO and anti-TG are elevated in ASS-positive CU patients compared with ASS-negative patients, and whether these laboratory findings are related to severity of CU.

Materials and methods

A total of 54 adults, diagnosed as chronic urticaria were enrolled in the study prospectively. d-dimer, autoimmune markers (anti-TPO, anti-TG), total IgE, thyroid hormone levels, and Urticaria activity score (UAS) were measured. After 6 months follow-up, improvement was classified as 3 groups: improvement groups included remission and well-controlled; no improvement group included partly controlled and uncontrolled.

Results

1. Demographic data
   A total of 54 adults with CU were recruited, 38 ASS positive, 16 ASS negative. The demographic data according to each group is shown in Table 1.

2. Laboratory findings and UAS scoring
   Serum d-dimer levels did not show significant difference between ASS positive and ASS negative CU patients. D-dimer levels (D-dimer: 0.24 mg/L, 0.43 mg/L (p=0.035), 0.47 mg/L (p=0.109), 0.64 mg/L (p=0.505), 0.72 mg/L (p=0.246), 1.07 mg/L (p=0.21)), total IgE levels (Total IgE: 126 mg/L, 121 mg/L (p=0.109), 112 mg/L (p=0.505), 125 mg/L (p=0.72 mg/L (p=0.246), 1.07 mg/L (p=0.21)), anti-TPO (Anti-TPO: 38 mg/mL, 38 mg/mL (p=0.505), 39 mg/mL (p=0.72 mg/L (p=0.246), 1.07 mg/L (p=0.21)), anti-TG (Anti-TG: 38 mg/mL, 38 mg/mL (p=0.505), 39 mg/mL (p=0.72 mg/L (p=0.246), 1.07 mg/L (p=0.21)), UAS (UAS: 33.84 (13.9), 33.84 (13.9)) were measured.

3. Disease severity (UAS) scoring
   Disease severity (UAS) scoring was used to assess the severity of disease. Table 2. UAS according to serum d-dimer level of the patients (UAS/AHA activity score). The d-dimer levels of the patients were divided into 4 groups: low (≤ 0.2 mg/L), normal (0.21-0.4 mg/L), high (0.41-0.6 mg/L), and very high (≥ 0.6 mg/L). The d-dimer levels of the patients were divided into 4 groups: low (≤ 0.2 mg/L), normal (0.21-0.4 mg/L), high (0.41-0.6 mg/L), and very high (≥ 0.6 mg/L). D-dimer levels of the patients were divided into 4 groups: low (≤ 0.2 mg/L), normal (0.21-0.4 mg/L), high (0.41-0.6 mg/L), and very high (≥ 0.6 mg/L). UAS (UAS: 33.84 (13.9), 33.84 (13.9)) were measured.

4. Response to treatment
   After 6 months, all the patients were evaluated for improvement according to the ASS positive and negative group. The improvement group was defined as ASS positive group (n=20, 37.0%) and ASS negative group (n=34, 63.0%). The treatment outcome in ASS positive group was better than in ASS negative group (p<0.001). Table 3. UAS according to treatment outcome.

5. Discussion
   In this study, chronic urticaria patients were enrolled according to ASS positive and negative groups. Laboratory findings, including d-dimer, total IgE, and autoimmune markers (anti-TPO, anti-TG) were not linked to ASS response. This suggests that the serum autoantibody and autoantibody pathway are related to the pathogenesis of chronic urticaria, but there is no direct correlation between the two mechanisms. ASS positive group showed higher UAS compared to negative group, but showed better response to treatment. This is because the serum factor plays a role in ASR reactivity. However, these laboratory findings may not be independent of each other and may be influenced by other factors. Therefore, considering these results, we should consider ASR reactivity, d-dimer level, and total IgE as predictors of disease severity.

6. Conclusions
   In conclusion, d-dimer and total IgE are associated significantly with disease severity. Further studies are needed to confirm these findings and to explore the underlying mechanisms.
urticaria (CU) may be associated with d-dimer, and patients with CU often have other autoimmune disorders, including autoimmune thyroid disease. The aim of this study was to evaluate whether the d-dimer, total IgE, and autoimmune markers such as anti-TPO and anti-TG is elevated in ASST-positive CU patients compared with ASST-negative patients, and whether these laboratory findings are related to severity of CU.

<table>
<thead>
<tr>
<th>Disease severity (UAS)</th>
<th>D-dimer level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Raised (n=8)</td>
</tr>
<tr>
<td></td>
<td>Normal (n=46)</td>
</tr>
<tr>
<td></td>
<td>P</td>
</tr>
<tr>
<td>20.5</td>
<td>12.1</td>
</tr>
</tbody>
</table>

Table 2. UAS according to serum d-dimer level of the patients (UAS=Urticaria activity score)

CU patients with elevated d-dimer level showed high UAS compared to normal d-dimer level group (Table 2). Total IgE was related to UAS only in CU patients with ASST negative. However, other laboratory markers such as anti-TPO and anti-TG were not related to UAS.

Therefore, considering the above results, we should consider ASST reactivity, d-dimer level and total IgE as predictors of disease severity.
Lupus pernio with 5 years of decreased visual acuity

Abdelli Wissal, Rebhi Faten, Ben Slimene Malek, Youssef Soumaya, Doss Nejib, jabber Kahena, Dhaoui Mohamed Raouf
Military hospital of instruction of Tunis

BACKGROUND

- Lupus pernio: cutaneous manifestation of chronic multisystem sarcoidosis.
- Often associated with pulmonary involvement and involvement of oral and nasopharyngeal mucosa.
- Ocular sarcoidosis: 10% to 25% of cases. It can involve any part of the eye and its adnexal tissues.
- Damage of optic nerve in uncommon

OBSERVATION

- A 56-year-old woman with 5-year history of gradual loss of vision and nasal obstruction presented with an infiltrated purple-red plaque on the tip of the nose.
- Skin biopsy: non-caseating granulomatous dermatitis.
- Quantiferon-TB Gold: negative.
- Nasofibroscopy: granulomatous aspect of the entire mucosa of the nasal fossae and the cavum.
- Ophthalmological examination: Visual acuities: 2/10 on the right and 3/10 on the left, dyschromatopsia in the yellow-blue axis, normal dilated fundus examination, temporal amputation of the right eye in the visual field.
- Orbito-cerebral magnetic resonance imaging: abnormal T2 hypointense signal in right intraorbital optic nerve with an hypotrophic aspect.

- Right optic neuropathy

DISCUSSION

- Electrocardiogram/echocardiogram: normal.
- Computed tomography: swollen bilateral mediastino hilar lymph nodes with non specific lung nodules and micronodules.
- Bronchoscopy: aspirate showed numerous non-necrotizing granulomas.
- Laboratory evaluation: borderline elevation of erythrocyte sedimentation rate and angiotensin-converting enzyme titers

- Lupus pernio with mediastinal, pulmonary, ORL, and ophthalmic involvement
DISCUSSION

• Lupus pernio is typically described as purplish swelling, with shiny skin changes on the nose, cheeks, lips, or ears.
• Associated with frequent involvement of the lungs and the upper respiratory tract as in our case.
• Involvement of the optic nerve: uncommon
• The most likely mechanism in our case: granulomatous micro-infiltration of the optic nerve.
Atypical pityriasis rosea presenting with vesicular lesions
ALLEN PESSOA, VIVIANE MAIOLINI, DANIEL OBADIA, SUELI CARNEIRO, ARLES BROTA - STATE UNIVERSITY OF RIO DE JANEIRO

BACKGROUND
Pityriasis rosea (PR), is a relatively common benign and self-limited papulosquamous eruption, affecting the trunk and limbs, usually seen in the 10-35-year age group. The etiology remains unknown, although an association with human herpes viruses (HHV) 6 and 7 has been reported.

CASE REPORT
A 53-year-old dark-skinned woman had a sudden eruption of pruritic lesions, preceded 7 days previously by malaise. Examination revealed hundreds of discrete scaly patches on her trunk and four extremities, extending to the forearms and legs. The rash of the trunk showed peripheral collarette scaling and orientation along lines of skin cleavage, and there was the herald patch. In addition, there were many vesicles on the backs of the hands and feet, palmar-plantar and on the wrists and ankles. Histopathology revealed psoriasiform and spongiotic dermatitis with mounds of parakeratosis and red cell extravasation (patch), and bullous acute spongiotic dermatitis with perivascular lymphocites (vesicle). We prescribed mometasone furoate cream with moisturizer, and oral hydroxyzine at night. Complete symptomatic remission was seen after 10 weeks.

DISCUSSION
Atypical case of PR (20% of the patients) are fairly common and less readily recognized than typical eruptions and may pose a diagnostic challenge. These presentations can be differentiated by size, distribution, sites involved, severities, cause of the lesions and morphology. In this reported case, atypical vesicular form on the limbs coexisted with the classic form. There was an intense pruritus, not common in PR. Severe itch has been described in patients with dark skin types. In our case, history, clinical evolution, histopathology evidence of an exuberant and atypical PR.

REFERENCES
HISTOLOGICAL ANALYSIS OF HS PATIENTS

INTRODUCTION
Suppurative hidradenitis is a disease with a high impact on the social and work life of the patients. The inflammatory mechanisms of the disease are partially known.

OBJECTIVE
To characterize the components of the dermal inflammatory infiltrate of hidradenitis.

RESULTS
Surgical specimens from 26 patients were analyzed. All of them, less two exhibited some degree of inflammation. The two patients had later cicatricial lesions. The infiltrate was predominantly superficial and deep, perivascular and perifollicular in more than 80% of the cases, forming granulation tissue in 62.5% of the samples. No infiltrate was detected around apocrine glands. The predominance of mononuclear cells, was observed in 91.6% of these, with a predominance of lymphocytes and plasma cells (75% of cases). Eosinophils were detected in 33% and neutrophils in 71%. Abscess formation was observed in 16% of the patients. Scar-like fibrosis was present in all, often in the deep dermis and subcutaneous tissue. Follicles were not found in four patients, in whom the dermis was extensively occupied by cicatricial fibrosis. In 72% of the patients the follicles were filled by keratin and with basal layer lesion; in 50%, there were wall rupture and neutrophil exocytosis. Cocci and bacilli within the follicles were observed in 22.7% and fistulous pathways in 42% of patients.

METHODS
Prospective, descriptive and quasi-experimental study of surgical pieces of patients with hidradenitis suppurativa Hurley II / III. The tissues removed during surgery were submitted to histopathological examination, with longitudinal and transverse sections. The comparison of histopathological characteristics was done by the Mann-Whitney test and chi-square test, at a significance level of 95%.
CONCLUSIONS
The histopathological findings reinforce that the structure primarily involved in hidradenitis would be the hair follicle and not the apocrine glands, as previously described. The high prevalence and intensity of acute and chronic inflammatory infiltrates, as well as the difficulty of resolution with the use of anti-inflammatory medications and even immunomodulatory agents, suggest that changes in the immune system may be responsible for the maintenance of this inflammatory reaction, even after destruction of the follicle.

A: Folliculitis with a surrounding predominant lymphoplasmacytic infiltrate.
B: Folliculitis showing spongiosis, neutrophils and lymphocytes exocytosis.
C: Normal apocrine glands.
D: Granulation tissue simulating sinus tracts.
E / F: Surgical specimen from armpit:
yellow arrows – drainage points filled by granulation tissue;
blue arrows – sinus tract-like structures formed by granulation tissue, without cyst formation.
Once anathema, it now seems that a ‘dirty’ environment can enrich a baby’s microbiome and lessen her or his likelihood of developing everything from obesity to asthma. Again, it seems that we can rely on man’s best friend to help us out.

Babies who share their homes with a dog are much less likely to grow up into adults with allergies than those who don’t.

**Puppy power**

Gupta S; Nature 2017: 543: 48-49
Dr Antonio Martorell  
Hospital de Manises  
Valencia (Spain)  

Thank you

antmarto@hotmail.com  
@drmartorell  
dr.antoniomartorell