WAO-PASAAI PAN ARAB ALLERGY MEETING
Advancing Allergy/Immunology Knowledge and Clinical Care

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- ABSTRACT BOOK -

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BCG Vaccine Associated Complications in Children with Combined Immunodeficiencies Affecting Cellular and Humoral Immunity

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Abstract

AIMS: To present the details of BCG-vaccine associated complications (VACs) in CID patients.

METHODS: Five centers participated in this retrospective study and completed a data form which included general patients' information, clinical and laboratory data.

RESULTS: Among 236 CID patients, 127 were BCG vaccinated. 41.9% of patients with family history of CID and 17.1% who were diagnosed by screening were BCG vaccinated. 23 patients (18.1%) developed BCG-VACs. The median age of VACs was 6 months and the median time from vaccination to complications was 6 months. The highest rate of BCG-VACs was recorded in patients receiving the Russian BCG strain compared to the Tokyo and Danish strains. Univariate analysis of T-lymphocyte subsets showed increased odds of BCG complications in patients with CD3+, CD4+ and CD8+ counts of ≤250 cells/ul. Only CD8+ count ≤250 cells/ul had increased such odds on multivariate analysis. VACs were disseminated in 13 and localized in 10 patients. Localized complication occurred earlier after vaccination (median: 4 months) compared to disseminated ones (median: 7 months).

COCLUSIONS: Although contraindicated, many patients with CID continue to be vaccinated with BCG. Low CD8+ count is a risk factor for BCG related complications and localized complications occurred earlier than disseminated ones. Considerations should be undertaken especially in countries with high incidence of CID to delay the time of BCG vaccine administration beyond 6 months of age, and to use the relatively safer strains like the Danish and Tokyo ones.

Abstract Submission Topics

--16. Immunodeficiencies--

2

Comparison of Sublingual Immunotherapy in Patients With Allergic Rhinitis Sensitive to House Dust Mites in Korea

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Abstract

The aim of this study was to investigate the clinical outcomes of sublingual immunotherapy (SLIT) using 2 kinds of SLIT medications (LAIS and Staloral) in patients with allergic rhinitis for Dermatophagoides pteronyssinus and Dermatophagoides farinae. We have evaluated the patient's characteristics, safety, and compliance in 293 patients and also analyzed the symptom score, medication score, satisfaction rate, and immunologic measurement in 84 patients who have continued the treatment over 1 year. The symptom scores were significantly improved in both treatment groups, 51% versus 44% (LAIS vs Starloral) at 1 year ($P < .05$). The medication score was also significantly decreased in both treatment groups ($P < .05$), 50.8% versus 60%. The subjective improvement score was 44.4% versus 46.1%, and satisfaction rate was 29% versus 40% ($P < .05$). The serum immunoglobulin G4 (IgG4) level was significantly increased in Staloral group ($P < .05$). The adverse events were 6.2% versus 33.3% and the compliance was 37.7% versus 25.1%. In conclusion, the improvements in symptom score and medication scores were not significant different between 2 SLIT medications at 1 year. LAIS was more compliant, less side effects and Staloral has shown increased satisfaction rate and IgG4 level.

Abstract Submission Topics

--3. ENT (Nasal polyp, Chronic Rhinosinusitis, Allergic Rhinitis)--

4

Psychological Triggers in Allergic Disorders

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Abstract

OBJECTIVES:

Currently scientists have begun discussing about multi causality of Allergic Disorders as not only antigens or traditional causes trigger its occurrence but also emotions, which are increasingly taken into account. Studies indicate the psychological parameters are scarce, hence this is an attempt.

This is one of the studies viz.:

(Sastre J, Crespo A, Fernandez-Sanchez A, Rial M, Plaza V.; on behalf of the investigators of the CONCORD Study Group. Anxiety, depression, and asthma control: changes after standardized treatment.)

METHODS:

The present work was conducted on patients who attended for their first consultation about immune-allergological disorders at the Clinic.(Zala Clinic)

After proper Evaluation of the Allergens, by Modified Prick Test Method, also the psychological management was offered to enhance the results thereby achieving total immunity against the allergens.

Assessing the patient psychologically,for Stress, Anxiety, depression, Irritability, Short temperedness etc.

Criteria for inclusion were: male and female patients with no psychopharmacological or allergological medication or psychotherapy.

RESULTS:

60 % of the patients who were tackled psychologically, apart from scientific management did improve in less than half time than usual.

In addition to scientific and pharmacological management, psychological management plays a pivotal role in recovery

CONCLUSIONS:

Under standardized allergy care and after a specific visit with the specialist, patients present significant improvement in these psychological disorders and exhibit better allergy control and functional parameters.

By these, the results of the quality of life of the Allergic patients have noticeably improved.

Abstract Submission Topics

--23. Miscellaneous--

5

IgE sensitization profile in patients with hyper-IgE syndromes

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Abstract

Objective: The aim of the present work was to determine the IgE sensitization profile in patients with hyper IgE syndrome (HIES). Methods: It is a descriptive study of 10 patients with HIES. All patients were tested for total IgE and specific IgE against a panel of 22 airborne and food allergens. These assays were performed by chemiluminescence (IMMULITE 2000 XPI®). Results: All patients had high levels of total IgE with a mean value of 2032 ± 1506 UI/ml, as well as an increased level of eosinophils noted in 09 patients. Anti-bromelain antibodies were positive in 04 cases. The majority of patients (08/10) had an extensive sensitization profile to several allergens. Specific IgE antibodies against mites, eggs and cow's milk were predominant in our study. Conclusion: This preliminary study showed a large profile of sensitization in the majority of patients followed for HIES. However, a careful anamnesis would be necessary to distinguish true allergies from biological sensitizations without clinical relevance.

Abstract Submission Topics

--16. Immunodeficiencies--

6

Anaphylactic shocks and Kounis syndrome after antiseptic solution exposure, a case report

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[3]Montpellier WHO Collaborating Centre for Classifications Scientific Support, Montpellier, France

Abstract

Introduction:

Kounis syndrome refers to the concurrence of acute coronary events and allergic or hypersensitivity reactions(1). In this report, we described a case of anaphylactic shock associated with Kounis syndrome after antiseptic exposition.

Case report:

We describe the case of a 77-year-old male patient exposed to chlorhexidine (BISEPTINE®) after skin injury. Few minutes after exposure, he presented sweating, nausea, diarrheas, and an important feeling of impending doom.

A spontaneous resolution of symptoms occurred, 2 hours at the emergency room, no clinical abnormalities were objectified by clinicians.

A drug eluting stent was implanted because of the finding of an atheromatous plaque in the right coronary artery during coronarography (performed because of ECG hemi-bundle branch block and troponine second cycle elevated at a double initial value).

3 months after the initial episode, the patient presented the same clinical presentation after another cutaneous application of chlorexidine on skin injury.

After a spontaneous resolution of clinical symptoms, the antiseptic solution was suspected as trigger of these reactions by the patient, who seeked allergy advice.

Prick-test to chlorhexidine was realized and was positive to 1/100 dilution of the neat 0.5% solution. Serum specific IgE to chlorhexidine was 24.7 KuA/L.

Conclusion:

This case aims to highlight the importance of recognition and declaration of this syndrome, to avoid misdiagnosis and re-exposure to the responsible trigger.

References:

(1)Poggiali E et al. Kounis syndrome: from an unexpected case in the Emergency Room to a review of the literature. Acta Biomed. 14 mars 2022;93(1):e2022002.

Abstract Submission Topics

--14. Anaphylaxis, mast cell disorders--

7

Anaphylaxis in pregnancy: risk factors and etiology

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Abstract

OBJECTIVES:

Although rare, anaphylaxis during pregnancy implies a risk to both mothers and newborns. We underwent a systematic review to identify patterns, potential causative agents and risk factors of anaphylaxis in pregnant women.

METHODS:

We searched MEDLINE, Cochrane, LILACS, SciELO, and Science Direct databases for manuscripts concerning the term “anaphylaxis during pregnancy,” without language restrictions. We screened studies, extracted data, and assessed the risk for bias independently in duplicate.

RESULTS:

From all 12 selected articles, the frequency of anaphylaxis during pregnancy was estimated by 1.5 to 3.8 per 100,000 pregnancies and the rate of anaphylaxis-related maternal mortality by 0.05/100,000 live births. Most frequents triggers of anaphylaxis during first semester are the same as in general population: antibiotics (58%), natural rubber latex (43%) and anesthetic agents (14%). Main causes of anaphylaxis during spontaneous delivery were anesthetic agents (43%) and antibiotics (14%), while, during cesarean section, antibiotics (50%) and latex (50%) were implicated. Main risk factors were: non-diagnosed previous history of allergic reaction and/or anaphylaxis, cesarean section and presence of risk factors for natural rubber latex allergy.

CONCLUSIONS:

This systematic review presents main triggers and risk factors of anaphylaxis during pregnancy, which may be the basis of preventive strategies to reduce morbidity and avoidable deaths.

Abstract Submission Topics

--14. Anaphylaxis, mast cell disorders--

8

Severe hypersensitivity reaction to Atezolizumab in a multifocal liver cancer proven by skin testing with successful desensitization

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Abstract

Introduction:

We present a case of anaphylaxis to Atezolizumab (humanized immunoglobulin G class 1 antibody that binds to programmed death ligand 1) with proven allergy by cutaneous testing followed by successful desensitization.

Case report:

Atezolizumab and Bevacizumab were administered to a 63-year-old male with multifocal hepatocellular carcinoma for three cycles. During the third cycle, the patient presented an anaphylactic reaction treated by antihistamine H1 and methylprednisolone. The acute tryptase was 9.29 microg/L (basal tryptase = 5.32).

Intradermal test was positive for Atelozizumab at 1/1000 and 1/100 of neat concentration (60 mg/ml)(1). Bevacizumab was readministered after negative skin tests.

A first desensitization attempt was performed without premedication, with the occurrence of diffuse urticaria after infusion of a cumulative dose of 130 mg. The reaction subsided over 2h after treatment with antihistamine H1 (Ebastine 40mg).

One month later, a second Atezolizumab desensitization was attempted, with a different protocol (with premedication antihistamine H1 and methylprednisolone, with slower infusion rate) leading to a successful administration of a therapeutical dose (1200 mg). No breakthrough reaction occurred.

Conclusion:

We presented a rare case of Atezolizumab allergy followed by successful desensitization.

This case enhances the role of desensitization protocols for the management of hypersensitivities to Atezolizumab in patients with need of this monoclonal antibody to improve cancer outcomes.

References:

1. Gonzalez et al “Protocol for Desensitization to Atezolizumab and Bevacizumab After Severe Anaphylaxis in the Treatment of Lung Adenocarcinoma” J Investig Allergol Clin Immunol 2021; Vol. 31(3): 265-267doi: 10.18176/jiaci.0637

Abstract Submission Topics

--13. Drug hypersensitivity--

9

A Case Of Hereditary Angioedema In A Young Egyptian Female

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Abstract

Introduction:

Hereditary angioedema (HAE) is a rare autosomal dominant disease resulting in recurring episodes of painful swelling due to dysregualtion of C1 esterase inhibitor enzyme (C1-INH), leading to considerable patient morbidity and mortality.

Case Report:

A 20-year-old female patient with past medical history of recurrent attacks of angioedema since the first year of life including the hands and feet to which she was asked to do X-ray to exclude fractures. She had attacks including her face too that was consulted by a dermatologist who mis-diagnosed as histaminergic-angioedema and kept on antihistamines with no response. At the age of 5, she sought an allergist who asked for skin prick test which revealed positivity to some allergen and prescribed sublingual immunotherapy with no response. Till the age of 19, she committed suicide by cutting her forearms which was managed with no residual except for the scars. She was consulted and asked for the work-up of bradykinin-mediated-angioedema which revealed low levels of C4 and C1-INH and diagnosis of HAE-type1 was made and kept on fresh frozen plasma on-demand and tranexemic acid 500mg tablets three times a day as long-term prophylaxis with no response as regard severity and frequency. At the age of 20, she had a severe attack including abdominal pain and laryngeal spasm, she received intravenous C1-INH concentrate 1000IU with improvement and was kept on long-term prophylaxis every 4 days.

Conclusion:

HAE carries a burden of diagnosis delay, disfigurement, disability, debt and mortality that should be managed adequately with tailored long-term prophylaxis.

Abstract Submission Topics

--6. Urticaria, angioedema--

Abstract Submission Topics

--2. Pediatric asthma--

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"Omalizumab combined with venom immunotherapyexperience of our department”

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Abstract

Background: Allergy in Hymenoptera venom counts in the first three causes of anaphylactic reaction. Immunotherapy is a well established way of treatment for hymenoptera venom allergy, although adverse reactions may also occur during this procedure. A few studies and case reports support the role of omalizumab pretreatment for difficult-to-treat cases.

Objective: The aim was to present the clinical experience of our Allergology Department retrospectively in patients with severe anaphylactic reactions after Hymenoptera sting.

Method: We review patients with type I hypersensitivity reaction to Honey bee and/or Wasp. Over 600 patients, with hymenoptera sting allergy, have been treated in our department. The use of omalizumab was needed in few of them. Two were the main reasons for this option. Either, it was unable to reach the maintenance dose due to consecutive allergic reactions, or they presented anaphylaxis even treated in high maintenance dose (3ml).

Results: For all cases the eliciting factor was Honey bee venom. As it was expected, most of the patients were male. Unfortunately, only 5 had molecular blood testing performed, as it is quite recently broadly used. Also, two had elevated tryptase levels at baseline. The most common maintenance treatment was omalizumab in combination with 2ml of immunotherapy. Three of them stopped omalizumab treatment after a successful challenge test, and continue with immunotherapy as per protocol.

Conlusions: The majority of the patients needed omalizumab were allergic to Honey bee venom. Most of these reactions were grade IV according to Muller classification.

Abstract Submission Topics

--9. Insect venom allergy--

14

Clinical trial on allergard, the herbal medicine for rhinitis

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Abstract

Background: Around 2.5% was the global incidence of allergic rhinitis (AR) per annum. The treatment modalities are so many. This clinical trial was conducted in GSL Medical College from August to December 2003 after Ethical Committee clearance. Aim: To find the efficacy of the newly developed herbal cream for Rhinitis. Methods: It was a prospective comparative clinical trial. The cream consisted of Ocimum sanctum, Glycirrhiza galbra, Albizzia lebeck, Aloe barbadensis, Clerodandrum Serratus, prepared under sterile conditions. Individuals > 18 years, having rhinitis of any cause with or without wheeze were included; symptomatology of running nose, sneezing, itching in throat, eyes, nose, cough, wheeze, stuffy nose and headache were considered. Atrophic rhinitis, comorbid conditions like acute rhinorrhoea, allergy to strong odours were excluded. There was objective score to assess improvement. Each symptom was given one mark. The outcome was deemed to be good, if the final score after the treatment was five. The participants were asked to apply allergard in the nostrils during night. Simultaneously, placebo was also tested on similar age group. Weekly review was planned for 6 weeks. Chi square test was used to find the statistical analysis; $P<0.05$ was considered significant. Results: Total 277 members were recruited, mean age was 37.3 years. Placebo showed nil response with 84% ancillary medication (AM), allerguard, response was 72% with 46% AM. The positive response was 41% in first week, 18.5% in 2nd and 12.8% in 6th; statistically difference was significant. Conclusion: Allerguard afforded relief in 72%, without any significant side effects.

Abstract Submission Topics

--1. Asthma (adult)--

15

Monitoring of post-covid respiratory complications. R.Sepiashvili,1,I. Pkhakadze2, M. Chikhladze1,2, S. Gamkrelidze[1],2 , D. Khachapuridze[1],2,3 K. Jugeli 2, M. Rodonaya2,

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Abstract

We Study group I consisted of 92 (61%) patients with post- COVID complications, and control group II included 58 (39%) patients without any post-COVID complaints.
Vitamin D monitoring revealed that in study group I, insufficiency of vitamin D was detected in 41 (44%) patients, deficiency in 36 (39%), and the normal level - in only 15 (9%) patients, respectively, while, of 58 patients of the control group without post-COVID symptoms, vitamin D insufficiency was fixed only in 11 (19%), deficiency in 19 (33%).
In addition, of 92 patients of the study group, only 33 (22 %) showed a slight increase in D dimer 258.5 ±2.45 compared to the control group; It should be emphasized that no increase in C-reactive protein level among the patients involved in the study was fixed; Only 9 (10%) patients showed a slight increase in procalcitonin level (0.75±0.23).
The allergic status was assessed and an increase in total IgE level was detected in 33 (36%) of patients. The main parameters of spirometry revealed FEV1; and slight changes in FVC FEV1/VC . Only 9 patients (10%) had mild obstruction, in 6 of which it was irreversible, and only 3 patients had reversible bronchial obstruction. . Significant changes were seen in terms of PEF - peak forced expiratory flow rate: in 56 (61%) patients the PEF rate was reliably reduced by 70% or more, compared to the norm. MEF50%, MEF25% indicators were reliably reduced, that indicates to the importance of COVID-19 infection in the development and course of respiratory symptoms.

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Abstract Submission Topics

--7. Covid-19--

16

The positive effect of VIT on other allergies and COVID-19 performe conditions!

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Abstract

Introduction: Hymenoptera venom allergy (HVA) is an immunoglobulin E (IgE)-mediated hypersensitivity, which includes the anaphylactic shock. Venom immunotherapy (VIT) is the etiologic treatment of the HVA with 75-98% efficacy. Objective: To study the role of VIT on the other IgE-mediated sensitizations on HVA patients. Material and methods: Two patients, one female 12 and one male 26 years old, resulted hymenoptera venom, pollens ad mites respectively due to intradermoreaction and prick test, and confirmed by specific IgE detection. They were subcutaneously treated with VIT because of their HVA, beginning with solution 1mcg/ml, than 10 and 100mcg/ml (Apis mellifera, L-tyrosine solution, ANNALLERGO). The maintenance dose of 100mcg was reached in 15 weeks in a cluster schedule, and the treatment continued every 4 weeks along 5 years or more. Generally, our patients have supported very well the VIT. Results/discussion: The annual patients' analysis of the specific IgE revealed a continuous level reduction not only for the bee venom but also for other allergens (pollens and mites) along 3 consecutive years of VIT. Conclusion: Our findings suggest that VIT may have a significant role on the improvement of other IgE-mediated allergies. However, the role of VIT should be confirmed through further studies and clinical/laboratory parameters.

During COVID-19 very difficult pandemic conditions I use to perform UR SCIT to my three bee venom allergy patients and I realise maintance dose of 0,5 ml or 50 mcg of bee venom every two to three weeks with realible results!

Abstract Submission Topics

--9. Insect venom allergy--

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Seasonal variation of outdoor fungal spores in the atmosphere of the peninsula of Qatar

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Abstract

Objective

Outdoor fungal aeroallergens contribute to manifestations of allergic disease. In Qatar, biological outdoor allergens' role in respiratory allergic diseases was evident. We aim to conduct further analysis of previously collected data about fungal spores.

Methods

The sample collection methodology was previously described (Al-Nesf M et al. 2022). In brief, daily airborne fungal spore concentrations (2017-2020) were measured simultaneously using Hirst-type volumetric spore traps located on the roof of two buildings in two cities of Qatar. Daily mean concentrations were expressed as the number of spores per cubic meter of air.

Results

Fungal spores showed distinctive patterns during study years with significant differences in the date on which the spore concentration peaked. The spores of the Cladosporium, Alternaria, and the others recorded types remained regularly present in the atmosphere of the sampling areas throughout the year, reaching several peaks recorded on monthly basis, and were significantly different for the two sampling sites. In Doha, the highest concentrations of Cladosporium were recorded in March and April-May peak periods for Alternaria. Regarding Al Khor, the highest levels of Cladosporium were reached in April and December, and April for Alternaria.

Conclusions

This further analysis provided essential baseline data to fill the existing gap about one of the principal inhalant biological particles contributing to allergic respiratory diseases through understanding the seasonal behaviour of fungal spores in the atmosphere of Qatar. More gaps exist in this area regarding having local standardized fungal extracts to be tested for diagnostic and therapeutic benefits in the future.

Abstract Submission Topics

--20. Air Pollution and Environmental Allergies--

21

Characteristics of severe eosinophilia in hospitalized patients

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Abstract

Objective: To investigate the medical conditions that are associated with severe eosinophilia (SE) in hospitalized patients.

Methods: This is a retrospective multicenter study. All cell counts showing SE (> 5 x 10^9/L) over a period of 13 yrs were retrieved. Corresponding patient records were screened for clinical and laboratory parameters as well as diagnoses upon admission and discharge.

Results: SE was overlooked or undiagnosed in 28% of 478 subjects. In 239 patients, SE was detected repeatedly (>1 blood count). This group had a mean age of 46.4 ± 26 yrs (neonates to 99 yrs) and male preponderance (64%). The leading diagnoses were hematologic and solid malignancy (31% and 11%, respectively). Following hospital admission, the most common new diagnosis was vasculitis whereas infection was mostly ruled out. In 145 additional patients a single incidental finding of SE was seen. This group consisted preterm newborns (59%), critically ill patients (18%), post-partum females (12%) and various gastrointestinal diseases (11%).

Conclusion: SE in hospitalized patients is often undiagnosed. Persistent SE may be found in all age groups and the most common cause is hematologic and solid malignancy. Transient eosinophilia in unexpected populations warrants further investigation and may lead to new insights on eosinophil functions.

Abstract Submission Topics

--23. Miscellaneous--

24

Skin Prick Test Versus Specific IgE in detecting sensitization of Dermatophagoides among Allergic Rhinitis Patients

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Abstract

Background: IgE evaluation for diagnosis of allergic rhinitis (AR) can be carried out using a specific IgE assay (sIgE) or a skin prick test (SPT). The comparison between the two methods has been evaluated in some studies, but the findings may not always be reliable in all settings.

Objective: To assess the yield of SPT compared to specific IgE testing (sIgE) in identifying Dermatophagoides sensitization in AR patients.

Methods: Thirty-three AR patients were enrolled. SPT and allergen specific sIgE for both Dermatophagoides pteronyssinus and Dermatophagoides farina were analyzed for all included patients.

Results: The study included 33 AR patients with age ranged from 19 to 54 years with mean 33.48 years. there was no agreement between SPT and specific IgE testing for both Dermatophagoides pteronyssinus and Dermatophagoides farina (Kappa = -0.317 7 & -0.119 respectively). Among cases with positive SPT for Dermatophagoides farina, 15 (15/23) patients were missed when they are subjected to sIgE and among cases with positive SPT for Dermatophagoides pteronyssinus, 14 (14/27) patients were missed when they are subjected to sIgE. Total IgE was not correlated to SPT nor sIgE for both Dermatophagoides.

Conclusion: there was no agreement between the results of Dermatophagoides-specific SPT and sIgE testing, suggesting that both SPT and sIgE testing should be done to detect sensitization for Dermatophagoides among AR patients.

Abstract Submission Topics

--3. ENT (Nasal polyp, Chronic Rhinosinusitis, Allergic Rhinitis)--

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Atypical Symmetric drug-related intertriginous and flexural exanthema due to amoxicillin with cross reactivity to cefadroxil

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Abstract

Introduction: Symmetric drug-related intertriginous and flexural exanthema (SDRIFE) is a delayed cutaneous eruption induced by a systemic drug characterized by a symmetrical erythema of the gluteal area and in the flexural or intertriginous folds without systemic symptoms. We report a case of atypical SDRIFE induced by amoxicillin with cross-reactivity to cefadroxil.

Case report: A 9-year-old boy presented to our department with a recurrent history of an erythematous, pruritus eruption localized in the left knee, and the interfessial region. The parent reported that the first episode appeared 72 hours after amoxicillin-clavulanic acid intake for a retroauricular abscess 2 years ago. The evolution was marked by the desquamation of the lesions within one day without residual hyperpigmentation after drug withdrawal. One year later, the patient described the same reaction in the same areas, 48 hours after amoxicillin intake for dental caries. On physical examination, no systemic symptoms were found. The patient was referred to dermatology department, a diagnosis of atypical SDRIFE based on clinical presentation was suspected. The symptoms disappeared gradually with desquamation after the amoxicillin withdrawal. Four weeks, after the lesions resolved, an intradermal skin test with amoxicillin was negative. We performed oral drug provocation tests that were positive with amoxicillin and cefadroxil, and negative with penicillin V.

Conclusion: This case report highlights the variability of SDRIFE clinical characteristics on one hand, and the utility of oral provocation tests in identifying the incriminated drug and assessing cross-reactivity on the other.

Abstract Submission Topics

--13. Drug hypersensitivity--

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Anaphylactic reactions related to nonsteroidal anti-inflammatory drugs: a case non case study

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Abstract

Background:Anaphylaxis is a life-threatening acute hypersensitivity reaction. Drugs are among the main triggers, and nonsteroidal-anti-inflammatory-drugs(NSAIDs) are among the most common drugs associated with such symptoms.We conducted this study to assess anaphylactic reactions related to NSAIDs, using a case-control approach.

Methods:The study used the Tunisian pharmacovigilance database of Monastir for 5 years, since2017.The association between NSAIDs intake and anaphylaxis was established using a case/non-case method. All patients presented with an adverse drug reaction were included. Patients were defined as “cases” if they had developed anaphylaxis.All other reports were “non-cases”.Association between reactions and drugs was calculated using the reporting odds ratio(ROR)with 95% confidence intervals(CIs). A p value<0.05 was considered significant.

Results:This study included 1354 patients with 661 cases of anaphylaxis. NSAIDs were incriminated in 107.Among these last patients, 71 are women. The mean age was 42years with extremes ranging from one to 74years. Atopy was noticed in 65cases.The NSAIDs involved were aryl-propionic acids in 37cases, followed by amino-salicylic acid in 34cases and aryl-carboxylic acids in 11cases.The delay was immediate in 64patients.According to Ring and Messmer scale for anaphylaxis, 99cases were classified as grade1 or grade 2. All patients had a favourable outcome.The calculated risk estimate was significant for NSAIDs (ROR 6.85; CI 4.15 to 11.3; p 10-3).

Conclusions:Our findings corroborate risks for NSAIDs in inducing anaphylaxis. Fortunately, most cases are not severe.However, given the widespread use of this drug class, awareness should be raised among patients and prescribers about this risk.

Abstract Submission Topics

--14. Anaphylaxis, mast cell disorders--

29

Successful Haploidentical Hematopoietic Stem Cell Transplantation in a Kuwaiti patient with MHC Class II Deficiency

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Abstract

Introduction: Major histocompatibility complex (MHC) class II deficiency is a rare autosomal recessive combined immunodeficiency, presenting with severely impaired cellular and humoral immune responses, susceptibility to severe infections, and death in early childhood. Hematopoietic stem cell transplantation (HSCT) is the curative treatment.

Case report: A 7-month-old Kuwaiti boy with MHC II deficiency was transferred for bone marrow transplantation. He was consanguineously born and was healthy until age of 4 months, when he contracted rhinovirus bronchiolitis, which resulted in severe respiratory distress requiring intubation and respiratory care in hospital for 2 months. He had recurrent fever, Pneumocystis pneumonia, and panhypogammaglobulinemia. Intravenous immunoglobulin replacement and cotrimoxazole prophylaxis were initiated when immunodeficiency was suspected. He was referred to our hospital with initial immunological laboratory showed WBC 7,700/mm^3, CD4+cells 8.69%, 470/mm^3, CD8+cells 31%, 1,680/mm^3, normal B and NK cells, IgG 778, IgA <5, IgM <6 mg/dL, and normal lymphocyte function. Whole exome sequencing demonstrated a homozygous mutation of *RFX5* gene (c.556-2A>G). Haploidentical HSCT from his mother donor was performed at age of 11 months. Engraftment syndrome was noted with mucositis grade IV and acute GVHD grade 2, and evidence of engraftment (XX 99.8% and XY 0.1%) with immunological reconstitution. He was hospitalized for 35 days before receiving monthly intravenous immunoglobulin and infection monitoring. After 6 months, he returned to his home country and was monitored remotely by telemedicine.

Conclusion: MHC-II deficiency is a rare combined immunodeficiency that requires prompt referral to a specialized center for HSCT before infection causes complicated end organ damage.

Abstract Submission Topics

--16. Immunodeficiencies--

30

Haematological side effects induced by clozapine: A case series

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Abstract

Background: Clozapine is an atypical antipsychotic drug that is commonly used in the treatment of refractory schizophrenia. However, its use is limited by the occurrence of haematological side effects which can be life-threatening. The aim of this study was to evaluate the epidemiological, clinical and chronological characteristic of haematological side effects associated with clozapine.

Methods:

We carried out a retrospective study including all cases of haematological side effects associated with clozapine and notified to the Pharmacovigilance Unit of Monastir (2004-2022). Imputability was established according to Begaud's method.

Results:

Seven cases of haematological side effects were included in our study: 7 men, with a mean age of 31 years (20-37 years). Hyper-eosinophilia was the most frequent haematological side effect (4 cases) reported in our study followed by thrombocytopenia (2 cases) and neutropenia (1 case). The mean incubation period was 27 days for hypereosinophilia and 25.5 days for thrombocytopenia. For neutropenia, incubation period was 35 days. The eosinophilia count ranged from 980 to 1500/mm3. The platelet level varied from 89000 to 91000/ mm3. The evolution was favorable in all cases of hyper-eosinophilea after reduction of clozapine dose. Nevertheless, for thrombocytopenia and neutropenia the recovery is reached after drug withdrawal.

Conclusion:

Through this study we point out that the majority of haematological side effects induced by clozapine can be resolved by clozapine dose reduction.

Abstract Submission Topics

--13. Drug hypersensitivity--

31

Bullous Fixed Drug Eruption: a case series

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Abstract

Background:

Bullous fixed drug eruption (BFDE) is a rare adverse drug reaction characterized by localized or generalized blisters and erosions, which can be confused with other bullous dermatosis. The aim of this study was to evaluate the epidemiological, clinical and chronological BFDE characteristics and to identify the implicated drugs.

Methods:

We carried out a retrospective study including all cases of BFDE notified to the Pharmacovigilance Unit of Monastir (2004-2022).Imputability was established according to Begaud's method.Skin tests were performed according to European Network on Drug Allergy recommendations.

Results:

Sixteen cases of BFDE were included in our study: 10 men and 6 women, with a mean age of 49 years (28-78 years).Drugs incriminated were: paracetamol (4 cases), nonsteroidal anti-inflammatory drugs (NSAID) (2 piroxicam, 1 Celebrex and 1 diclofenac), fluoroquinolone (2 ciprofloxacin and 1 levofloxacin), doxycycline (2 cases), sulfamide (1 sulfaguanidine and 1 sulfamethoxazole) and metronidazole (1 case). BFDE was localized in all cases. Mucosal involvement was observed in 7 patients (4 oral and 3 genital mucosa).The incubation period was ranging from 15 minutes to 5 days.The evolution was favorable after drug withdrawal in all cases. Patch tests to the suspected drug were positive for 2 patients.Oral provocation tests were carried out for 11 patients with positive results for 9.Cross reactivity was explored in 3 cases.

Conclusion:

Through this study, we notified the implication of paracetamol and NSAID in inducing BFDE in one hand and the utility of oral provocation test to identify the causative drug in other hand.

Abstract Submission Topics

--13. Drug hypersensitivity--

32

Cutaneous adverse reactions induced by antituberculosis drugs : acase series

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Abstract

Background

Antituberculosis drugs (ATD) are associated with several cutaneous adverse drug reactions (CADR) varying from erythema to fatal severe ones. As ATD are combined and concomitantly administrated, it's challenging to recognise and remove the offending drug which can result in treatment failure

Methods

A retrospective study was conducted, including suspected cases of ATD-induced CADR notified to the Monastir Department of Pharmacology from 2004 to 2021. Demographic characteristics, the pattern of cutaneous lesions, causative drugs, and the reinstitution of safe ATD were analysed and can be guided with skin tests and sequential reintroduction.

Results:

Fifty-two patients (10 males / 42 females with a mean age of 43.5) were included. CADR were immediate in 34.4% and non-immediate in 65.3%. Maculopapular exanthema was the most common type (N=24), followed by urticaria (N=6), pruritus (N=6), acneiform eruption (N=7)and DRESS (N=5). Culprit ATD were: isoniazid (N=14), rifampicin (N=11), pyrazinamide (N=10), ethambutol (N=2) and ethionamide (N=1). Fourteen patients had localised erythema secondary to a histamine release and ATD were reintroduced under antihistaminic drugs without recurrence of cutaneous symptoms. ATD have been pursued in 20 cases and withdrawn in the remaining cases. Eight patients underwent skin tests with positive findings in four of them. Successful desensitisation was performed in three patients. Culprit ATD were contraindicated in 26 cases

Conclusion

The spectrum of ATD-associated CADR ranges from mild to life-threatening reactions. However, the culprit drug can be identified using skin tests followed by a drug challenge. Desensitisation may be an alternative option before opting for second-line ATD.

Abstract Submission Topics

--13. Drug hypersensitivity--

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Thromboembolic complications induced by COVID-19 vaccines

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Abstract

Background:

Adverse reactions (ARs) induced by COVID-19 vaccines (CVs) were mostly related to mild reactogenicity events. However, despite the well-proven efficacy, some serious adverse have been emerging including neurological and thromboembolic complications (TEC), which are rare but life-threatening.

Methods: we had included all patients with TEC following CVs, notified the Monastir department of pharmacovigilance.

Results

From a total of 339 ARs related to CVs, 8 patients had TEC(2 females/6 males) with a median age of 68 years (31 - 82 years old). Most common TEC were ischemic cerebral stroke (62.5%) and deep vein thrombosis (37.5%). The medium time to the onset of TEC was 13.3 days (1-30 days). TEC were associated with the first dose of vaccine. Vaccines-related to TEC were COMIRNATY® in 6 cases and Vaxzevria® in 2 cases. All patients were hospitalised. Seven patients had recovered with two of them having motor deficit sequelae. One patient had a fatal evolution. Vaccine's imputability was probable in four cases considering the clear temporal relationship and the exclusion of other alternative causes after exhaustive investigations. However, three patients had predisposing factors for thrombosis and the imputability of the vaccines was uncertain. Since the gravity of these ARs, second dose of the related vaccine was contraindicated. An inactivated CV was recommended as an alternative to the second dose of vaccination.

Conclusion

Reports of TEC had been described with mRNA and adenoviral vaccines with unproven causality. As causal association is still controversial, further study is necessary to better prove it.

Abstract Submission Topics

--7. Covid-19--

34

Acetylsalicylic acid desensitization in patients with confirmed acetylsalicylic acid hypersensitivity: a case series

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Abstract

Background

Hypersensitivity to acetylsalicylic acid (ASA), categorized as either non-immunologically-mediated or immunologically-mediated reactions, is reported with an incidence of 20%. However, it may restrict ASA use in subjects with coronary artery disease. In patients with confirmed ASA hypersensitivity and a compelling need for ASA therapy, desensitization may offer a viable option for the delivery of treatment

Methods

We included all patients with confirmed hypersensitivity to ASA, who underwent desensitisation to ASA, notified to the Monastir department of pharmacology (2004-2022). A rapid desensitization procedure of 8 sequential doses of ASA (0.1, 0.2, 1, 3, 10, 25, 50, and 100 mg), at 15-20 minute intervals was performed.

Results

Five patients (3females/2 males), with a median age of 57.5 ± 7.1 years were included. Hypersensitivity reactions related to ASA were : ASA-induced urticaria/angioedema in four cases and ASA-exacerbated respiratory disease (AERD) in one case. Median delay to the onset of symptoms was 2.8 hours (few seconds -10 hours). All patients had an urgent need for ASA before cardiac catheterization. Four cases had a successful desensitisation outcome (80%) with the use of premedication with antihistamines for only the patient with AERD. However, one patient failed the desensitization as he developed itchiness and angioedema one hour after the protocol, despite ongoing premedication. At one-year follow-up, patients who successfully responded to the desensitization procedure had tolerated daily use of 100mg of ASA, without developing allergic reactions.

Conclusion:

With a success rate of 80%, ASA desensitization allowed patients with ASA hypersensitivity to benefice from long-term dual antiplatelet therapy.

Abstract Submission Topics

--13. Drug hypersensitivity--

35

Cross-reactivity between cephalosporins and penicillins: implication of amino-R1 side chain

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Abstract

Objectives

Amino-cephalosporins, i.e cefadroxil and cephalexin are the most likely cephalosporins to cross-react with amino-penicillin since they share the same amino-R1 side chain. Therefore, assessment of cross-reactivity is necessary for prescribing safe cephalosporins for amino-penicillin allergic patients

Methods

We carried out a cross-sectional study (2004-2022) including cases of patients with HSRs to amino-penicillins with cross-reactivity to amino-cephalosporin. An allergological work-up (Skin prick test (SPT), intradermal test (IDT) and Drug Provocation test (DPT), were performed according to the ENDA guidelines. The diagnosis of selective HSRs to amino-penicillins was retained based on positive allergological work-up to amino-penicillin and negative to other penicillin (benzylpenicillin, oxacillin).

Results

Cross-reactivity to cephalosporin was assessed in 29 patients, with selective HSR to amino-penicillins. Six patients (20.6%), (6females, mean age of 44.5 ± 17 years) had a positive DPT to cefadroxil, with negative skin tests and/or DPT to other cephalosporins. HDRs manifestations were immediate in 5 cases (urticarial=4, anaphylactic reaction grade3 =1) and delayed in one case of fixed drug eruption (FDE=1). HSRs to amino-penicillins were confirmed with SPT (n= 2), (IDR n=3) and DPT (n=1). A positive DPT reaction to cefadroxil was observed with a median of 1 hour in immediate reactions and one day in the case of FDE.

Conclusions:

Cross-reactivity between amino-cephalosporin and amino-penicillin seems to be related to the structural R1 side chain. Thus, the assessment of cross-reactivity with cephalosporin in patients with selective HSRs to amino-penicillin is mandatory to understand the support of drug hypersensitivity and prescribe a safe alternative cephalosporin

Abstract Submission Topics

--13. Drug hypersensitivity--

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Cross-reactivity among cephalosporins: role of side chain

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Abstract

Objectives

We aim in this study to evaluate the cross-reactivity among cephalosporins in subjects with a confirmed hypersensitivity to a cephalosporin and tolerance to penicillins. three groups of cephalosporins were identified in the literature: G1 = Cephalosporin with methoxyimino group, G2 = Cephalosporin with N-methyl-tetrazole-thiol group and G3 = Amino-cephalosporin.

Methods

Patients with confirmed HS to a cephalosporin; notified to the Monastir department of pharmacology (2004 and 2022), were included. Diagnosis of cephalosporin induced-HS was based on positive skin test (ST) to the responsible drug. Cross-reactivity among cephalosporin was assessed by ST, performed according to the ENDA guidelines. In all cases, tolerance to oxacillin, benzylpenicillin, amoxicillin and ampicillin was confirmed by negative ST and/or drug provocation test.

Results

Ten patients (2 females/8 males), median age of 27.7 years old were included. Hypersensitivity reactions (HS) were immediate in 2 cases (anaphylaxis garde3 =2) and delayed in 8 cases (generalized exanthema=6, DRESS=2). Culprit cephalosporins were: cefotaxime=7, cefazolin=2 and cefuroxime=1. Assessment of cross-reactivity, in these cases, revealed that: In the case of cefotaxime-induced HS, ST yielded positive results to cefuroxime (N=5), ceftriaxone (N=1), ceftazidime (N=1) and cefazoline (N=1). Each of the patients having cefuroxime-confirmed hypersensitivity and cefazoline-confirmed hypersensitivity positively reacted to cefotaxime (N=3). One patient displayed positive results for all mentioned cephalosporins.

Conclusions

Cross-reactivity among cephalosporin seems to be more frequent among methoxyimino-group. It is highly recommended to assess cross-reactivity among patients with cephalosporin confirmed-HR to help clinicians understand the mechanism of HS (selective cephalosporin HS or a subclass cephalosporin HS)

Abstract Submission Topics

--13. Drug hypersensitivity--

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Acute encephalitis following COVID-19 Vaccines: a case series

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Abstract

Background: To report two rare cases of encephalitis related to COVID-19 vaccination and inherent challenges in their diagnosis.

Results

Case 1: Three weeks after receiving her first dose of mRNA-1273, a 35-year-old female, was admitted to the intensive care unit as she had confusion and a febrile tonic-clonic seizure complicated with a status epilepticus and dysautonomia. Cerebrospinal fluid (CSF) investigations were nonspecific, and MRI head did not detect any abnormality. Common causes were excluded by an extensive workup (neoplastic, neuro-vascular, autoimmune and infectious causes). She received cefotaxime and acyclovir without any recovery. However, a spectacular recovery was noticed when receiving methylprednisolone.

Case 2: Three days after receiving her first dose of BNT162b2, an a-40-year-old female, was admitted to the medical-care unit as she had experienced a three-day history of headache, memory disturbance, severe cognitive disorders and 4 febrile tonic-clonic seizures. MRI head showed signs of bitemporal encephalitis and CSF investigations with no findings. Extensive laboratory studies ran out alternative causes. A twenty-one-day acyclovir regimen was administrated with no recovery. As the cognitive deficit is getting more severe, she got intravenous immunoglobulin therapy with a spectacular improvement.

Conclusion: Based on the Naranjo Algorithm, this adverse reaction can be possibly (score=6) induced by COVID-19 vaccines. The spectacular improvement after receiving either corticoids or immunoglobulin therapy supports an immune-mediated mechanism behind this acute presentation. Cases of acute encephalitis secondary to H1N1 influenza have been previously reported but those related to COVID-19 vaccines are still not yet elucidated due to the unproven causality

Abstract Submission Topics

--7. Covid-19--

38

Immediate hypersensitivity reaction to COVID-19 vaccines: what's the value of skin tests ?

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Abstract

Background

IgE-mediated hypersensitivity reactions (HSRs) to COVID-19 vaccines(CVs) are considered extremely rare. These HSRs are either attributed to the vaccine itself or its excipients.

Method

We carried out a retrospective study including all cases of suspected immediate HSR induced by CVs and notified to Monastir department of pharmacology. Skin tests(ST) (Prick and intradermal tests (IDR)) to vaccines and their respective excipients were performed.

Results

Among 339 ARs following CVs, only 10 cases were related to suspected immediate HSR (7 females/3 males, average age of 46 years old). Clinical manifestations were urticaria in 7 cases, anaphylactic reaction grade 3 in 2 cases and grade 2 in one case. The median delay to the onset of symptoms was 3 hours. All immediate HSR were secondary to the first dose of vaccine administration. Suspected Covid-19 vaccines were Vaxzevria® in 6 cases, Moderna® in 2 cases, COMIRNATY® and CoronaVac® in one case, each of them. ST were performed for all patients. Only 2 patients, who presented urticaria and anaphylactic shock, had a positive result to the culprit vaccine Vaxzevria®. STto the excipient (Polysorbate 80) was negative. Among patients with negative ST (n=8), six underwent vaccination with the same vaccine with antihistaminic premedication, without recurrence of the HSR. the two remaining patients, culprit vaccines were contraindicated in view of the severity of the reaction

Conclusion

Skin tests can be helpful in the diagnosis of authentic IgE mediated HSR to CVs. However, their sensitivity remains to be determined in a large scale population.

Abstract Submission Topics

--13. Drug hypersensitivity--