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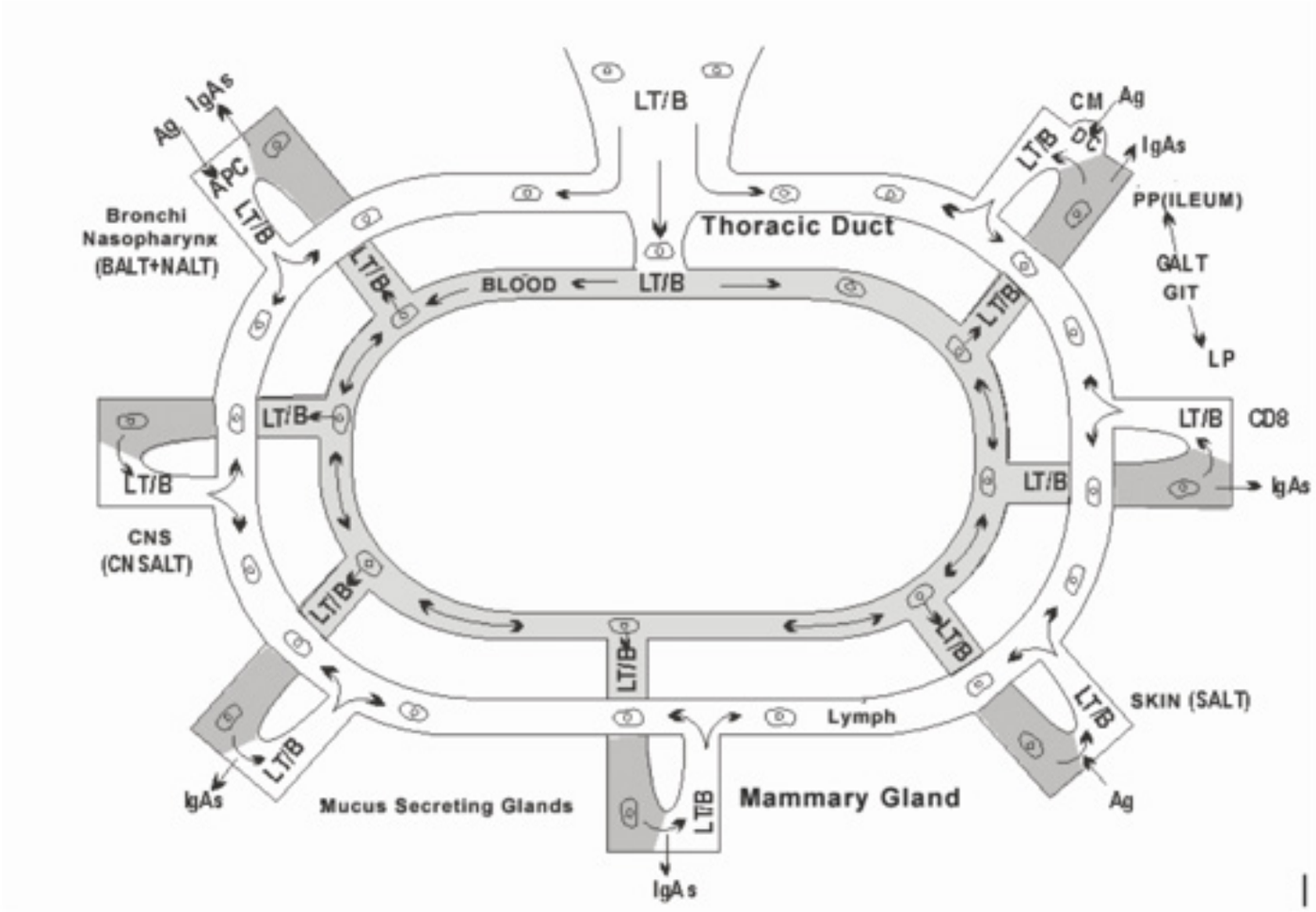
AN UNDER ESTIMATED CAUSE OF ASTHMA: FOOD ALLERGY

CAUSAS DO AUMENTO DE ALERGIA ALIMENTAR EM TODO O MUNDO

RIGHT LOW ABDOMINAL PAIN (RLAP) IN PHYSICAL EXAMINATION: A NEW SIGNAL IN FOOD ALLERGY

IMMUNE TH2 OR TH1 ACTIVATION AND FOOD ALERGY IN PATIENTS WHO TAKE COW'S MILK IN NURSERY



EDITORIAL

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CONTEÚDO

COMENTÁRIO DO EDITOR

Neste quarto volume de Journal of Food Allergy, versículo 4, quatro artigos originais sobre temas importantes da clínica diária, relacionada com as queixas sobre alergia alimentar são apresentados a nossos leitores, todos eles do grupo de especialistas em alergia alimentar dirigidos pelo Professor Aderbal Sabra.

No primeiro artigo deste versículo 4 é feita uma revisão de um tema antigo, do domínio dos alergistas respiratórios, visto sob um novo prisma. Trata-se da ASMA de origem alérgica alimentar. Com este artigo a experiência do grupo do Prof Sabra faz minucioso estudo das varáveis clínicas deste fascinante tema aqui apresentado aos nossos leitores.

O segundo artigo deste versículo aborda as causas que fazem da Alergia Alimentar um problema comum de consultório nos dias de hoje. São passadas em revisão as causas do seu aumento em todo o Mundo.

O terceiro artigo tem requintes de originalidade máxima, pois descreve um sinal novo que se encontra no exame físico do paciente com alergia alimentar: dor à palpação na fossa ilíaca direita. Este achado ao exame físico ocorre quando se faz a palpação da fossa ilíaca direita do paciente, ao se comprimir o íleo terminal. O paciente refere dor à palpação. Este sinal indica inflamação do íleo terminal, secundário à reação inflamatória das placas de Peyer, pela resposta à estimulação alérgica alimentar.

O quarto artigo diz respeito aos achados das mediações imunes Th1 ou Th2 ou mista, nos pacientes com alergia alimentar, resultante do uso precoce da mamadeira de leite da vaca usado nos berçários. São usados os marcadores biológicos IgE para a lergia Th2 e a relação CD4/CD8, nas alergias Th1.

Aderbal Sabra, MD, PhD
Editor-Chefe
Journal of Food Allergy

Original Article

AN UNDER ESTIMATED CAUSE OF ASTHMA: FOOD ALLERGY

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Bronchial asthma is characterized by chronic coughing, phlegm, shortening of breath, and wheezing (1). During the last few decades, a worldwide phenomenon of increase in the prevalence of asthma in parallel to other allergic condition such as food allergy, rhinitis, and eczema has been consistently observed (2, 3).

More than 300 million people worldwide are diagnosed with asthma. Developed and westernized countries have higher asthma prevalence(4,5). The prevalence of asthma has been increasing since the 1980s, particularly in children and young adults. To date, asthma is the most common chronic disease in children. Asthma is associated with a western-life style and this has been shown clearly for example by children who have been migrated from developing countries to developed countries(6)

Studies have reveled that certains risk factors such as age, smoking , and occupational exposure, are associated with an increased incidence of bronchial asthma (7). The role of food allergy in asthma is well recongnized but is poorly quantifield. People with asthma are five times more likely to report adverse food reactions than people without asthma (8)

Certain food itens are of minor nutritional significance have been cited as the cause of immunoglobulin (Ig)E-mediated severe asthmatic response, for exemple, royal jelly(9) and fenugreek(10). In a study in France, 6672 schoolchildren aged 9 to 11 years were evaluated for food allergy, asthma and allergic rhinitis, through skin prick testing and parent-completed questionaries(11). There was a statistically significant association between food allergy and asthma and allergic rhinitis even in those who did not report respiratory symptoms with food reactions.

Some studies demonstrated that patients with asthma have subclinical inflammatory changes in digestive tract mucosa(12,13) or a marked presence of cells implicated in allergic inflammation in macroscopically normal mucosa(14).

In a prospective study, Malmberg et al, concluded that children with a history of cow milk allergy showed increased bronchial hyper-reactivity (BHR) and sings of airway inflamation at school age, compared with their controls (15)

Krogulska et al, demonstrated that bronchial hyper--reactivity was detected in 47% of non-asthmatic children with food allergy and in 53% of children with food allergy and allergic rhinitis. They concluded that children with food allergy had increases BHR independent of respiratory symptoms. Although BHR occours in asymptomatic children with food allergy and asthma. Factors that determine BHR prevalence in children with FA are similar to those in children without FA(16).

In this context, the relevance of our research focuses on the need for clinical characterization of patients with food allergy are at increased risk for developing bronchial asthma.

Materials and Methods

We analyzed randomly medical records of 36 patients from the files of the BSFA (Brazilian Society of Food Allergy), aged between 2 and 16 years, of both genders, with the diagnosis of food allergy and asthma. Asthma was diagnosed by the classical clinical picture. Food allergy was diagnosed by the BALT clinical picture plus the response to the withdraw of the offending food from the patient diet and resulting in disapearance of the clinical disturbance. All patient relapse after the food chalenge with the offending food. All the patients had both diseases mediated by IgE.

In the chart of each patient was available the clinical

history, physical exam, laboratorial data and the therapeutics responses with evidences proving that all patients had food allergy and asthma. All data was organized in excel tables to posterior analyses.

RESULTS

According to age , 25 (69%) of patients were children and 11(31%) were adolecents.

Moreover, is also in this period of early in life, that the first symptoms began to emerge, with a prevalence at 4 months in 7 (19.4%) of the patients, for both diseases food allergy and asthma and 61% in first year.

The results of the analysis according to the patient's chief complaint at the moment of the diagnosis, of all patients have asthma and food allergy.

Symptoms reported by patients according to the main system affected reveled, in GALT system abdominal pain in 80% of patients, in BALT catarrh and rhinitis in 80.5%, in SALT system atopic eczema and urticarial are similar in 38.8% of patients and CNSALT insomnia in 47.2% of patients.

With respect to family history of food allergy was observed only in 1st degree relatives, 26 among the mothers, 24 among the fathers and 7 in brothers.

Regarding the gestational history there has been a significant number of patients delivered by cesarean section 31 (86.1%) while only 3 (8.35%) were vaginally, as the following table.

The results of analysis concerning feeding history of patients. From the 36 records analyzed 14 (38.88%) had a yes response, 16 (44.44%) had no information and only 6 (16.66%) chose not to answer. In the second item, only 12 (33.33%) patients reported having been the first feeding in the first hours after birth, the others had no information.

Regard to breastfeeding 18 (50%) patients were breastfed, 15 (41.66%) did not know and 3 (8.33%) were not. The early introduction of bottle-feeding in the nursery was present in 11 (64,7%)patients out of 17. Only 6 patients were exclusively breastfed since birth. 19 (52.77%) patients did not answer this question.

From the total number of records analyzed, 24 (66.65%) introduced some type of formula before six months of life, a significant number and contradictory to the ideas of the World Health Organization (WHO), only 7 (19.45%) used the formula in the correct period.

DISCUSSION

The prevalence of asthma increased 75% from 1980–1994 and asthma rates in children under the age of 5 years increased more than 160% from 1980–1994. (17). It is currently estimated that by 2025, the number of people with asthma will grow by 100 million. (18)

A study by Schroeder et al of 271 children 6 years and older and 296 children younger than 6 years. A diagnosis of current asthma was based on parental report of physician diagnosis and reported asthma symptoms in the previous year. Symptomatic food allergy was significantly associated with asthma in the older children with an odds ratio (OR) of 4.9 (95% confidence interval [CI]: 2.5–9.5) and OR of 5.3 in younger children (95% CI: 1.7–16.2). Additionally, the odds of having asthma increased with increasing number of food allergies. The time from age of onset of food allergy and age of asthma onset was also evaluated. In the older age group, the median age of the onset of asthma was 5 years. In the younger children, the median age of asthma onset was 2.3 years.(19) This data complete our information that are more frequent in young chidren.(20,21,22,23)

Crook in 50ths note in his office, clinic and hospital out-patient departament, he can see youngsters who look pale and show dark shadows under their eyes. In addition, many of these youngsters will sniff, snort, and clear their throuts. And some of them will also complain of headache, stomach ache, and aching in their legs and others muscles.(24)

Children with symptoms such as these have been described repeatedly in the medical literature in 90 years, but we actually forgot the clinic of allergy is biggest than asthma or eczema. And we in this paper want to bring the reminder that the child or adult with asthma is accompanied by a series of complaints that are left aside by our sub-specialties that see patients in fragments.

Food allergies have clinical manifestations on the skin, gastrointestinal, respiratory systems and other organs(21) .

In a study of 480 children who underwent oral ingestion double-blind plascebo-controlled food challen-

gers , 39% of the 185 children with positive reactions experienced ocular and respiratory symptoms. Only 5% had symptoms confined to the respiratory tract alone.(22)

During the last few decades, a worldwide phenomenon of increase in the prevalence of asthma in parallel to other allergic conditions such as food allergy, rhinitis, and eczema has been consistently observed (23). Atopic dermatitis and food allergy often begin in infancy and there appears to be an onward trend that leads to asthma and allergic rhinitis in school age or early adulthood (25).

Special consideration should be given to children born into both nonatopic or atopic families. In this context studies of epigenetic have to be forced to analyse connections of enviromental and genetic modifications. Because studies have revealed that especially the genetic background and the homeostasis of the TH1/ TH2/ regulatory T-cell response mother can affect the child´s immune response. (26,27,28)

Kaufman & Frick (29) contrasted unilateral with bilateral family story in the unilateral family history (62% of population) there occurred a smaller incidence of allergic disease than the bilateral group, which comprised 38% of the study (8.35%) were vaginally, as the following table.

A recent study confirmed this assumption by showing that cesarean section leads to increased numbers of patients with allergic rhinitis and atopy among children of atopic parents (28,29) . The reason could be the lack of contact with environmental bacterial during delivery.

The mode of delivery and the type of care have a great impact the acquisition of the intestinal bacteria. Intestinal microbiota after cesarian delivery are characterized by an absence of bifidobacteri species that are the predominant species in newborn vaginally delivered(30).

According to the Ministry of Health (BRAZIL, 2009) is recommended exclusive breastfeeding until six months and supplemented by two years or more. There are advantages to starting other foods before six months. The early introduction is associated with a higher number of hospitalization for respiratory disease.

Current evidence shown that breastfeeding for 4 months, compared with feeding formula made with intact cow's milk protein, prevents or delay the occurrence of atopic dermatitis, food allergy, and wheezing in early childhood. (31) Data suggest for infants at high risk of atopy and who were not exclusively breastfed for 4-6months that the onset of atopic disease may be delayed or prevented by hydrolyzed formulas compared with formula made with intact cow´s milk protein, particularly for atopic dermatitis. (31,32,33) Early food sensitization has been previously identified as a predictor for asthma. Rhodes et al (23).

CONCLUSION

From this analysis, it can be verified that all patients had a diagnosis of asthma induced by food allergy, as the main complaint respiratory problems. But, others systems may be affected and we have to remember in priority abdominal pain and rhinitis in 80% of patients and CNSALT with insomnia in 47.2%. Factors of induction of allergy are cesarean delivery (86.5%) and bottle-feeding in the nursery, present (64,7%) of the newborns as a factor of early induction to the TH2 system reaction. The conclusions suggest that patients with asthma and food allergy have many systems affected and the form of delivered and use of bottle-feeding may induce the TH2 response in children, so the longer duration of exclusive breastfeeding becomes essential. Further studies should be conducted to confirm our findings, since they have knowledge across the subject addressed results in early diagnosis and consequently in effective treatment. Finally, it was of great importance to this work, and the objectives were achieved in order to provide information on asthma and food allergy.

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TABELA 2 – APRESENTATION OF THE ONSET OF SYMPTOMS BY AGE

Variables	N	%
Age of onset		
1 month 5		
1 year	22	61.6
2° year	6	16.7
3 year	6	16.7
5 year	1	2.8
Without information	1	2.8

TABLE 3 – PRESENTATION OF ANALYSIS OF 36 CHARTS ACCORDING TO CHIEF COMPLAINT

Variables	N	%
symptomatology		
Abdominal pain	15	41.6
Skin complain	12	20.3
Respiratory complains	36	100
Vomiting	2	3.4

TABLE 4 – PRESENTATION OF SYMPTOMS, ACCORDING TO MALT SYSTEM INVOLVED:

Variables	N	%
GALT		
Canker / Constipation / Diarrhea	16	44.4
Bloating / abdominal pain	29	80.5
Lack of appetite	7	19.44
bulky stools	10	27.7
halitosis	2	5.5
Nausea / Vomiting / Reflux	19	52.7
BALT		
Asthma	36	100
Catarrh / Rhinitis	29	80.5
Pharyngitis / snoring	18	50
Sinusitis / Chronic Cough	23	63.8
Pneumonia	10	27.7
SALT		
Angioedema / erythema of cheek / dartre wheel / perioral dermatitis	4	11.1
Seborrheic Dermatitis / Eczema Atopic	14	38.8
perianal erythema	2	5.5
Olheira	11	30.5
Itching / urticaria	14	38.8
CNSALT		
headache	4	11.1
Attention Deficit / Hyperactivity	2	5.5
Insomnia / Sleep Disorder	17	47.2

TABELA 5 – FAMILIAR HISTORY

Variables	N	%
Familiar history of allergy		
Brother	7	12.30
Mother	26	45.60
Father	24	42.10
Gestational history		
Vaginal delivery	3	8.35
cesarean delivery	31	86.10
No Information	2	5.55

TABELA 6 – FOOD HISTORY

Variables	N	%
Mother took milk in breastfeeding		
No	6	16.65
Yes	14	38.90
No information	16	44.45
Exclusive breastfeeding		
No	18	50
Yes	3	8.35
No information	15	41.65
Bottle in the nursery		
No	6	16.65
Yes	11	30.55
No information	19	52.80
When introduced formula		
< 6 months	24	66,65
> 6 months	7	19,45
No information	5	13,90

N-Frequency; % - Absolute frenquency

Original Article

CAUSAS DO AUMENTO DE ALERGIA ALIMENTAR EM TODO O MUNDO

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Paralelamente às mudanças que fisiologicamente seguem ocorrendo nas crianças, desde o nascimento, o meio ambiente em que se desenvolvem mudou muito devido a industrialização e a urbanização acelerada, ao mesmo tempo que aparece a carência à amamentação exclusiva e a redução do adequado tempo de amamentação, devido à necessidade do trabalho materno. Com a urbanização e o progresso vem o excesso de higiene ambiental e a redução do tamanho das famílias e tendência ao filho único, levando ao parto por cesárea e os nascimentos em ambiente hospitalar, ambiente tipicamente estéril, diferente do meio ambiente familiar e do parto normal, onde ocorre o contato precoce dos recém nascidos com o canal de parto via vaginal, onde estes adquirem importantes quantidades da microbiota saprófita, de origem materna, indispensável à colonização precoce do tubo digestório do recém nascido. Este tipo de parto cesáreo induz ao descanso materno pós parto, retarda a "descida" do leite materno, o que não raro leva ao uso de mamadeira de leite de vaca no berçário, antes da amamentação com o leite materno. Como resposta à presença desta proteína do leite de vaca , no trato digestivo do recém nascido, vai ocorrer resposta imune ativando o sistema Th2 de resposta alérgica do GALT. Esta mamadeira pode certamente ser chamada de "mamadeira assassina" devido às conseqüências adversas que traz para o sistema imune do recém nascido.

Paralelamente o recém nascido ingere as bacterias provenientes do meio ambiente hospitalar. Uma flora coliforme, totalmente diferente da flora materna, rica em lactobacilos e bifidobacterias. Estas bacterias potencialmente patogênicas não raro vencem o equilíbrio bacteriano entérico, requerendo atenuação com antibióticos, que alteram ainda mais a flora entérica. O retardo no crescimento da flora entérica leva ao retardo da maturação do TGF beta, retardando-se assim a maturação do sistema imune Th1.

A somação destes fatores leva à resposta natural do recém nascido a apresentar resposta Th2. A comportar-se como alérgico.

Vale mencionar os trabalhos com murinos que mostram a importância da microflora intestinal na indução de tolerancia oral. Os animais "germ-free" ou "naive" mantem uma resposta imune Th2, com produção de IgE, depois da ingestão de ovoalbúmina e só desenvolvem tolerância com a inoculação de Bifidobacterium infantis, sempre e apenas quando se realiza esta colonização no período neonatal.

Fatores adicionais que facilitariam o enfraquecimento do sistema imune do infante, frente aos antígenos alimentares e às bactérias, são o uso de medicações como bombas antiprotónicas ou antiácidos, que neutralizam a barreira ácida do estômago, não permitem a acidez duodenal, dificultando a secreção pancreática de suas enzimas digestoras.

A resultante final de todos estos estímulos nocivos para o lactente é um estímulo precoce à ativação Th2, enquanto que a aquisição de tolerância oral se acompanha de resposta predominantemente Th1. Deste modo, a "mamadeira assassina", a ausência de amamentação exclusiva e ou o desmame precoce, o excesso de higiene doméstica, as famílias pequenas, com apenas um filho, o parto cesáreo, o uso abusivo de antibióticos e também o uso abusivo de bomba antiprotónica e de antiácidos trazem como resultante o aumento da alergia alimentar a nivel mundial.

AMAMENTAÇÃO INADEQUADA E MAMADEIRA ASSASSINA

São vários os fatores concorrentes para o aumento da AA em todo o mundo. O mais grave de todos é a amamentação inadequada. Toda criança nasce Th2, com predisposição para ser alérgica e dentre os fatores que promovem a conversão de Th2 para Th1, destaca-se o aleitamento materno exclusivo. Sendo assim, toda criança deve receber leite humano exclusivo, até oito meses, até o final do fechamento da janela imunológica de conversão Th2/Th1, que acontece por volta do oitavo mês de vida. Esta medida deve ser mandatória, principalmente em filhos de pais alérgicos. Estas crianças, filhos de pais alérgicos, que recebem leite de vaca antes dos oito meses, serão alérgicas ao leite de vaca.

O segundo erro frequente, entre nós é o uso indiscriminado da "mamadeira assassina" nos berçários. A introdução do leite de vaca, antes do leite humano, gera uma resposta de ativação imune do perfil Th2, que vai perdurar por muitos meses ou anos e fará desta criança um paciente alérgico ao leite de vaca. O nosso Ministério da Saúde(MS) é o grande responsável pela introdução desta mamadeira em berçários do SUS, quando obriga, por portaria, que mães sem teste HIV não possam amamentar seus filhos, até que o teste fique pronto e esteja normal. Durante este tempo nossas crianças recebem a "mamadeira assassina", com referendo ministerial. Medida desastrosa para nossa alergia alimentar.O ideal seria que o denominado teste rápido, fosse realmente rápido, evitando assim a introdução de outro leite que não o materno no Berçário, ou quando isto não fosse possível de imediato, uma fórmula de aminoácidos fosse disponibilizada para estas crianças.

EXCESSO DE HIGIENE FAMILIAR E PARTO CESAREO

O terceiro fator que contribui para o aumento da AA em todo o mundo é o excesso de higiene. Felizes aqueles que nascem em um ambiente rural e podem desfrutar de uma atmosfera rica em lipopolissacarídeos, capazes de acelerar a maturação Th1. A grande maioria de nós, que vivemos em ambientes citadinos, temos como paradigma o excesso de higiene. Nossos partos são, em mais de 90% dos casos, totalmente estéreis, pela cesariana, impedindo que nossos recém-nascidos tenham contato com o canal de parto e que assim recebam, por deglutição, uma colonização precoce e desejável do trato digestivo. Os ambientes hospitalares e a pressão social nos impelem ao cuidado extremo de higiene. O uso indiscriminado de fórmulas esterilizadas afastam os intestinos de nossas crianças de uma flora normal. Como promover a maturação TGF-beta, se não permitimos o estabelecimento de uma flora normal, o mais precoce possível no tubo digestivo de nossas crianças? Sem Th3 não temos como frear o nosso Th2. Este é um dilema ainda não resolvido.

USO ABUSIVO DE ANTIBIOTICOS E DE ANTI-ACIDOS

Outro fator que concorre para o aumento da AA em todo o mundo, está no uso exagerado de antiácidos e antibióticos. Observamosna prática clínica diária que o uso indiscriminado de antiácidos ocorre em qualquer criança que golfa ou vomita. Ao primeiro sinal de golfadas e vômitos o seu pediatra inicia o uso de um antiácido. Esta conduta que hoje observamos como de rotina, contribui em muito para agravar a AA. Nada mais deletério para o nosso pâncreas do que o uso contínuo de antiácidos, que não permitem que acidez necessária chegue ao duodeno e assim se complete o ciclo fisiológico da secreção pancreática. Sem a necessária acidez gástrica e duodenal, não se ativa a gastrina e como consequência não são secretadas a secretina e a pancreozimina, indispensáveis para o pâncreas completar seu ciclo de secreção de bicarbonato e enzimas, especialmente o tripsinogênio e assim não se digerem as proteínas, que inteiras vão chegar às placas de Payer, do íleo terminal, aumentando as chances de AA. O mesmo ocorre com o uso indiscriminado de antibióticos, que por sua ação antibacteriana, vão retardar o crescimento da flora colônica.

FAMILIAS DE APENAS UM FILHO E ATIVAÇÃO PRECOCE DO TH2 POR INFECÇÃO PÓS-NATAL

Podem ser acrescidos a estes fatores, as infecções precoces do trato respiratório, do trato digestivo e da pele, que quando presentes ativam as respostas Th2 e fazem do órgão afetado o órgão de choque. É lamentável ver que a maioria destes fatores são passíveis de prevenção, mas estão longe de serem alcançados. Erramos todos nós quando vemos que nossos obstetras desconhecem estes efeitos deletérios da cesariana e

nossos pediatras permitem as mamadeiras ou os copinhos no Berçário e os excessos de higiene. Acresce a tudo isso a pressão social da competitividade e do poder econômico a reduzir ao mínimo o número de filhos por famílias. Apenas um filho significa no mínimo dedicação total a ele. Significa excesso de proteção ambiental e excesso de higiene. Isso tudo ocorrendo sob as vistas e as carícias de uma mãe que nada mais deseja que super proteger seu filho, com devoção e excesso de amor. Esta criança esta assim criada, esta fadada a ser alérgica. Estão aí as estatísticas que não nos deixam mentir demonstrando que o segundo filho será sempre menos alérgico do que o primeiro. A mãe é a mesmo, seu amor é o mesmo, o ambiente é o mesmo. Entretanto suas atenções agora tem de permeio um primogênito que se encarrega de criar um ecossistema devidamente diferente e apropriado para seu pequeno irmão. O contato do irmão mais velho com o mais novo estará longe de ser estéril. Troca de chupetas, mão suja e "contaminada" na boca do irmão mais novo, troca de beijos, compartilhar de alimentos, são das mais simples atitudes, entre muitas, do primogênito em relação ao seu irmão. Está assim criado um ecossistema benéfico ao segundo filho. Este será menos alérgico.

CONCLUSÃO

Amamentação inadequada, "mamadeira assassina", excesso de higiene, parto cesáreo, uso indiscriminado de antibióticos e antiácidos, filho único e infecção pós natal, são fatores que associados a uma genética de alergia, em uma criança imatura, que nasce sabidamente Th2, são os requisitos com que convivemos para justificar o aumento avassalador da AA em todo mundo.

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Original Article

RIGHT LOW ABDOMINAL PAIN (RLAP) IN PHYSICAL EXAMINATION: A NEW SIGNAL IN FOOD ALLERGY

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Expontaneous abdominal pain is a common symptom described in many pathologies but is so difficult the diagnostic and continues to be an enigma. The finding of right low abdominal pain (RLAP) in physical examination is different in essence from expontaneous abdominal pain. Since in the vast majority of children no organic cause is found, it is futile to subject children without alarm symptoms to detailed investigations. A systematic approach to this common problem is beneficial both to the child and the family. On the other hand pain at palpation of the right iliac fossa, as a signal, is related to inflammation of this area.

The diagnostic of right low abdominal pain is based in anamnesis and physical examine, associated to laboratorial and radiological examines.

The most common diagnosis is appendicitis, but others causes may not be forgetter like apendangites, renal lithiasis a gynaecological cause for right inferior pain was attributed to females with the finding of a gynaecological abnormality on radiological imaging or at surgery. Mesenteric adenitis was considered as a diagnosis in patients aged less than 14 years of age with evidence of a concomitant viral respiratory tract infection with associated pyrexia, whose clinical condition improved with non-operative management. All that causes have both, the symptom and the signal at palpation of this area.

Food allergy is a common but overlooked cause of abdominal pain. Meenaxi describe a case of female internist with chronic recurrent abdominal pain who was investigated for multiple provisional diagnosis of gall bladder disease, sphincter of Oddi dysfunction, recurrent pancreatitis, autoimmune pancreatitis, superior mesenteric artery syndrome and splenic flexure syndrome but final culprit turned out to be papaya intolerance and later on a diagnosis of latex food allergy confirmed 1. Nodular lymphoid hyperplasia has been given a number of names including nonsclerosing ileitis follicularis, pseudopolipyposis lymphatica, lymphonodular hyperplasia, enteritis follicularis, and terminal lymphoid ileitis2. The multitude of eponyms attests to the fact that the etiology of nodular lymphoide hyperplasia remains unkown. It is thought to perhaps be an exuberant allergic response to microorganisms or food antigens3.

Physiopathology of right low abdominal pain (RLAP) in physical examination: inflammation in the terminal ileun

The physiopathologic mechanism of cow milk allergy in infants is usually associated with intestinal inflammation4, inflammatory and infectious intestinal diseases cause a thickening of the intestinal wall.and ultrasound may, therefore, detect these changes. There is an important difference in intestinal vessel density in infants younger than 6 months with cow milk allergy compared with healthy infants matched according to age5.

Histological findings associated with cow milk allergy include the presence of cellular infiltrates and marked increase in eosinophils in the mucosa and submucosa with involvement of even deeper muscular layers in some cases 6,7,8.Althoug the immunopathogenic mechanism of Cow milk allergy is not fully undertood, eosinophils and their degranulation products seem to play an important role. Eosinophil activation and degranulation may result in acute and log-lasting effects. Studies have linked the presence of T helper 2- associated eosinophilic inflammatory response to gastrointestinal allergic hypersensitivity and gastric dysmotility.

Early-life inflammation can cause long-term changes in the brain-gut axis that may ultimately result in central sensitization, altered pain pathsways, ande persistent visceral hyperalgesia9.

OBJECTIVE

The objective of this study is to describe the pain in the right low abdominal area, as a signal finding in the physical examination as the result of palpation of the right iliac fossa of patients with food allergy.

MATERIAL

We make a retrospective study using the medical data of Brazilian Society of Food Allergy (SBAA) and from Food Allergy Unit-UNIGRANRIO. We analyzed 363 medical records of patient with food allergy and saw the frequency of this signal: right low abdominal pain (RLAP) at palpation in of the area corresponding to the terminal ileum at physical examination.

RESULTS

The sex of ours patients are 48% masculine and 52 % feminine, are not different with literature. The age are similar to the literature, 42,8% are lactent and 32,7% are children in school age.

In direct anamneses the abdominal pain, are most frequent complain. obtained in 15,6% of patients, followed by diarrhea and vomits with 12,6 and constipation with 11.7%, next to them we saw vomiting in 11.7% of patients studied.

In physical exam of the right abdominal pain we found pain at palpation in 88% of patients followed by abdominal distension in 13,5%. left abdominal pain was found in 3,3% . Epigastrial pain and spenomegaly in 2,6%

DISCUTION

The distribution of gender are not different in literature and ours founds. Are not significant differences enter masculine and feminine10.

Food allergy is common among infants aged 0-1 years and decreases with ageing. The estimated prevalence in Japan is 5-10% among infants and 1-2% schoolchildren 11.

Food allergy may cause a wide variety of clinical manifestations depending on the mechanism involved in the reaction (acute or delayed, IgE-mediated or non-IgE-mediated or mixed12 . The gastrointestinal tract seems to be the most common organ, followed by skin, and the respiratory tract and multiple systems can be involved13.

The chronic or recurrent abdominal pain is a common but difficult-to-treat condition. Crook in 1976´s, described in his article that the food allergy is the commonest cause of abdominal pain in children14.

Although much progress has made in the field of IgE--mediated food allergy, The presence of a mucosal intestinal lesion of ileal lymphonodular hyperplasia has been found in variety of inflammatory bowel diseases of gastrointestinal tract and food allergy15.

Inflamatory and infectious intestinal diseases cause a thickening of the intestinal wall that can be detected using gray-scale ultrasound 2,3. Epfanio et al desmonstrated that in young children with CMA compared with healthy infants have a important vassel density 5.

Studies by Kokkonen and Karttunen 12,16 and reports by Wakefield et al 16,17, have introduced strong data to support the hypothesis that food allergy is pivotal causative factor that produces the lesions in the terminal ileum that consist of greatly enlarged lymphoide nodules containing large collections of lymphocytes in gastro intestinal lymphoid tissues adjacent to Peyer patches. Based upon these findings, we have hypothesized that ileal nodular hyperplasia may be the hallmark lesion of this patients with a variety of allergic disorders18,19and may plain our found of right abdominal pain.

CONCLUSION

One explanation for the RLAP in patients with food allergy is related to the inflammation of the ileal nodular lymphoid hyperplasia expressing the immune-reaction at the Payers Patches in the terminal ileum. The explanation for the expontaneous abdominal pain could also be the degranulation of eosinophils in the mucosal or muscular structure of the bowel wall inducing pain.

All physician doing physical examination in patients with the suspicious diagnosis of food allergy, have to do a careful examination of the right low abdomen, considering the presence of pain at palpation. The evidence of this signal will be very suggestive for food allergy.

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Original Article

IMMUNE TH2 OR TH1 ACTIVATION AND FOOD ALERGY IN PATIENTS WHO TAKE COW'S MILK IN NURSERY

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INTRODUCTION

FoodAllergy (FA) has become a common problem in practice for the gastroenterologist and allergists, by increasing its frequency world wide.(1, 2, 3, 4, 5)
The particular interest to recognizing factors like bottle of cow's milk in nursery , is to predicting children at high risk of developing atopy soon after birth to start preventive programs in the immediate postnatal period.(6, 7, 8, 9)
Breast-feeding is strongly recommended by midwives and physicians. Some positive constituents in milk have been described for the prevention of allergic disorders or pathogen related diseases in neonates. (10,11,12)
Maternal milk also has the potency to induce oral tolerance to food and environmental antigens by means of immunosuppressive activity.12,13 and proved that colostrum and milk from allergic or healthy mothers do induce similar in vitro proliferation and antibody production by cord blood lymphocytes of neonates; however, these in vitro reactions were significantly greater in cells from children of allergic mothers.(13)
Breast feeding in the less afluente and informed populations of the world is far superior to bottle feeding in both morbidity and mortality of neonates (14, 15, 16)). In fact "... if one conciosly sets out to kill infants of the poor, he might begin by persuding or forcing their mothers to articially feed them"(17)

OBJECTIVE

One cause of this increasing factor is the use of bottle of cow's milk prior to breast milk. The aim of this work is to add new data for the inappropriate habit of offering a bottle of cow'smilk in the nursery before the breast Milk.

MATERIAL AND METHOD

130 patients with FA colected among the charts of the Brasilian Society of Food Allergy and from our outpatient clinic at Food Allergy Unit in UNIGRANRIO, were studied regards the use of bottle fed prior to breast at the nursery station.
Patients were classified according to their clinical and their laboratory tests in patients with mediated IgE FA, non-IgE mediated FA and mixed IgE and non-IgE FA.

RESULTS

In total of 130 charts studied and 70 patients were classified with IgE-mediated AA, representing 53% of yours samples. Studing this patitents 44 took the bottle in the nursery before human milk (HM) (62, 85%).
In 42 patients with non-IgE we foud 19 who took the bottle in the nursery before the human milk(45.23%).
When classified in mixed food allergy the total of 18 patients were found , 8 took the cow's Milk before the HM (44.44%)
In total 71 babys took cow milk before breast milk in nursery and representes 54,6% of ours samples.

DISCUSSION:

Current evidences show that 4-month breastfeeding compared with feeding formula made from intact cow's milk protein, prevents or delays the occurrence of atopic dermatitis, food allergy, and wheezing in early childhood . Data for infants at high risk of atopy and who were not exclusively breastfed for 4-6 mon-

ths suggest that the onset of atopic disease may be delayed or prevented by hydrolyzed formulas compared to formula made with intact cow´s milk protein, particularly for atopic dermatitis. (18, 19, 20).

Understanding the reaction of T helper type 2 (Th2) at birth , the birth Th2 and thereby to postnatal immune stimuli with Th2 -mediated allergy , is of fundamental importance . This understanding leads to the need for essential measures are taken immediately , in postnatal life , failing to develop an allergy response in the newborn (NB) .(21)

Allergy desenvolviment depends on among other factors, the ability to predicti and to institute preventive cares as early as possible in individual risks. Georges, discrebed IgE level determinations at birth was predective to developing atopic disease18. In others two studies discribed the TH2 development after contact with cow milk.(22)

The results show that the use in the nursery of the bottle of cow's milk correlated with the cases of IgE--mediated FA (62.85% and 44.44% versus 45.23%) than the other types of allergies. This finding concurs with the literature data, with respect to that allergen stimuli in the first days of life, induce newborn to produce IgE Food Allergy.(23)

The imune system functions with both cells and humoral factors as effector ellements, actins alone or in cooperation.Both T-lynphocytes and non-plasma cell B-Lymphocytes are capable of regular recirculation through the body; 17 this is of special significance in regard to the mammary gland.(24)

Although such drastic reversals in the relative concentration of immunoglobolin concentration during the first week of lactation in marked. The reduced concentration is in part a result of the dilution that occurs as the secretion volume of the breast increases. Hence, immunoglobulin output is best expressed after correction for the change in volume.(25)

In addition to the delivery of pathogen-specific IgG or IgA antibodies,138,139 which contribute to the primary protection of the immature immune system of the child, breast-feeding provides the necessary factors for colonization and maturation of the neonatal gastrointestinal tract and its immune defense mechanisms, respectively14,15which contribute to the primary protection of the immature immune system of the child, breast-feeding provides the necessary factors for colonization and maturation of the neonatal gastrointestinal tract and its immune defense mechanisms, respectively.(26)

One exemple of the risk for early induction of food is the development of celiac disease was 5 times higher when babies were fed a gluten-comprising diet within the first 3 months of age compared with a later introduction of cereals.(12)

CONCLUSION

Early introduction of any other protein in the diet of the newborn before breast milk is associated, at high rate of food allergy.

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