DEVE FARE UN INTERVENTO CHIRURGICO MA... E' ALLERGICO

Policlinico di Bari - Ospedale Giovanni XXIII

Lucia Diaferio

UNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO

doi: 10.1111/j.1365-2222.2009.03404.x

Clinical & Experimental Allergy, 40, 15–31
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BSACI GUIDELINES

BSACI guidelines for the investigation of suspected anaphylaxis during general anaesthesia

P. W. Ewan[1], P. Dugué[2], R. Mirakian[1], T. A. Dixon[3], J. N. Harper[4] and S. M. Nasser[1]

[1]Allergy Clinic, Cambridge University NHS Foundation Trust, Cambridge, UK, [2]Department of Allergy and Respiratory Medicine, Guy's Hospital, London, UK, [3]Royal Liverpool and Broadgreen University Hospital NHS Trust, Liverpool, UK and [4]Manchester Royal Infirmary, Manchester, UK

GUIDELINES

Reducing the Risk of Anaphylaxis During Anesthesia: 2011 Updated Guidelines for Clinical Practice

PM Mertes,[1] JM Malinovsky,[2] L Jouffroy,[3] and the Working Group of the SFAR* and SFA* and W Aberer,[4] I Terreehorst,[5] K Brockow,[6] P Demoly,[7] for ENDA** and the EAACI Interest Group on Drug Allergy

J Investig Allergol Clin Immunol 2011; Vol. 21(6): 442-453

Società Italiana di Pediatria Preventiva e Sociale
SIPPS

Australian and New Zealand Anaesthetic Allergy Group/
Australian and New Zealand College of Anaesthetists
Perioperative Anaphylaxis Management Guidelines

H. Kolawole*, S. D. Marshall†, H. Crilly‡, R. Kerridge§, P. Roessler**

Anaesth Intensive Care 2017 | 45:2

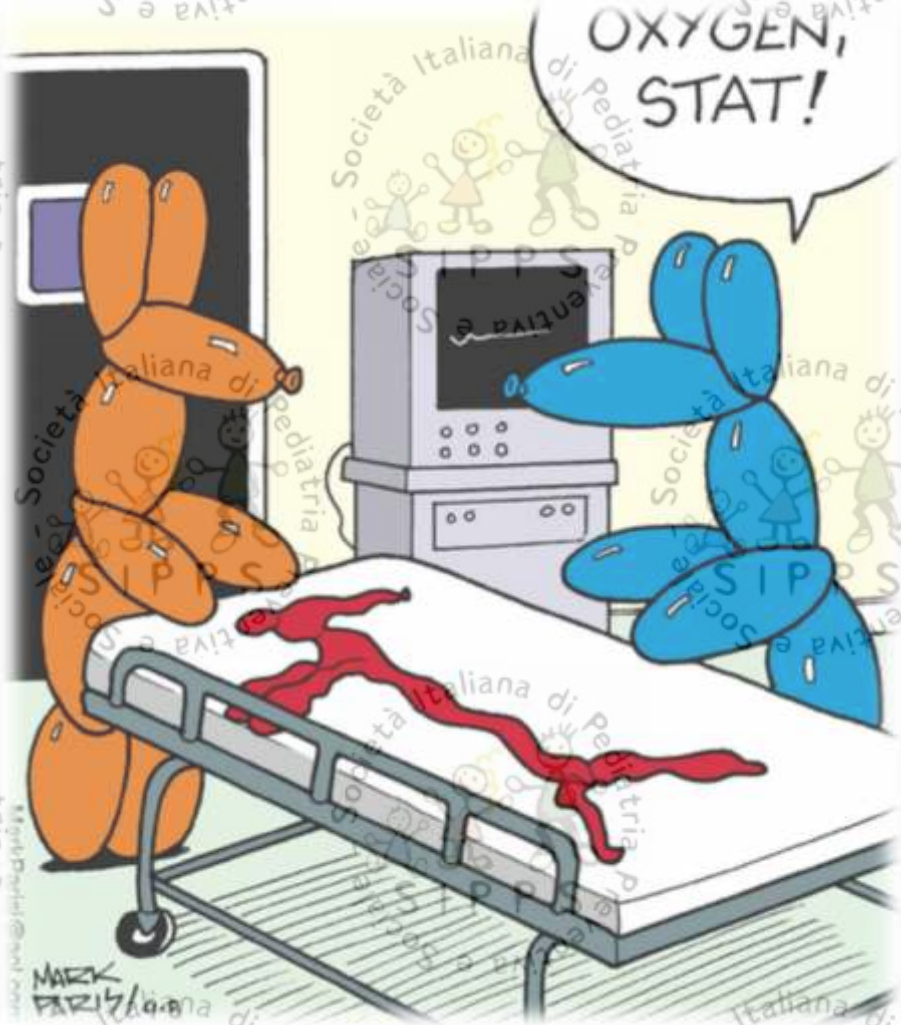
An EAACI position paper on the investigation of perioperative immediate hypersensitivity reactions

Allergy. 2019;1–13.

Lene Heise Garvey[1,2] | Didier G. Ebo[3] | Paul-Michel Mertes[4] | Pascale Dewachter[5] | Tomaz Garcez[6] | Peter Kopac[7] | José Julio Laguna[8] | Anca Mirela Chiriac[9,10] | Ingrid Terreehorst[11] | Susanna Voltolini[12] | Kathrin Scherer[13]

Allergy EAACI WILEY

Società Italiana di Pediatria Preventiva
SIPPS


OXYGEN, STAT!
MARK PARISI

The Journal of Allergy and Clinical Immunology:
In Practice

J ALLERGY CLIN IMMUNOL
VOLUME 128, NUMBER 2

Anaphylaxis during anesthesia in France: An 8-year national survey

Paul Michel Mertes, MD, PhD,[a] François Alla, MD, PhD,[b] Philippe Tréchot, PharmD,[c] Yves Auroy, MD, PhD,[d] Eric Jougla, PhD,[e] and the Groupe d'Etudes des Réactions Anaphylactoïdes Peranesthésiques* *Nancy and Le Vésinet, France*

LATEX NMBA ANTIBIOTICS

Perioperative anaphylactic reactions: Review and procedure protocol in paediatrics

A.V. Michavila Gomez[a,*], Mª.T. Belver Gonzalez[b], N. Cortés Alvarez[c], Mª.T. Giner Muñoz[d], V. Hernando Sastre[e], J.A. Porto Arceo[f], B. Vila Indurâin[g], Drug allergy Work Group of the Spanish Society of Paediatric Allergy, Immunology (SEICAP)

Allergol Immunopathol (Madr). 2013;xxx(xx):xxx–xxx

Table 1 Commencement of adverse events corresponding to the causing agent.

Minutes following induction	Intra-operative	Towards end of surgery or during recovery
-Muscle relaxants	-NSAID/paracetamol IV	-Intravenous opiates
-Intravenous anaesthesia	-Intravenous opiates	-Colloids
-Intravenous opiates	-Intravenous antibiotics	-Anaesthesia reversing agents
-Antibiotics	-Local anaesthetics	-Allergy to latex
-Technical problem with anaesthesia	-Colloids (>15 min after commencement of infusion)	
	-Allergy to latex	
	-Colorants/contrast dyes	
	-Chlorexhidine	
	-Iodised povidone	
	-Surgical problem	

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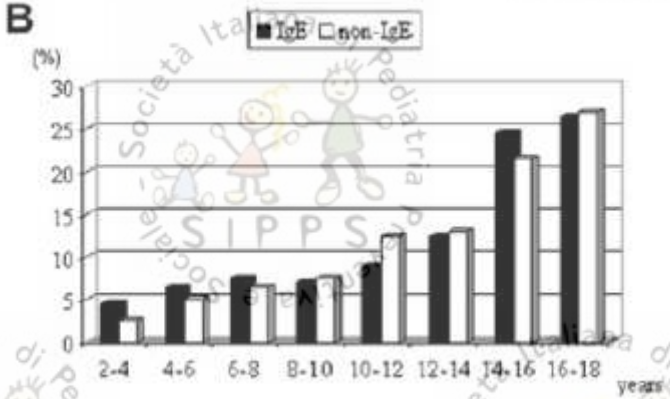

266 children: 45,9% with an IgE-mediated reaction

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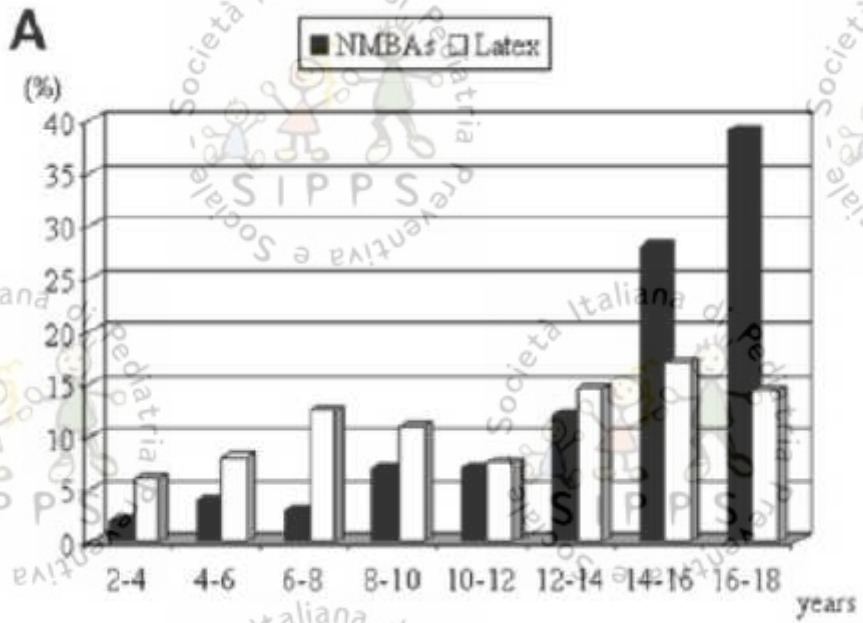

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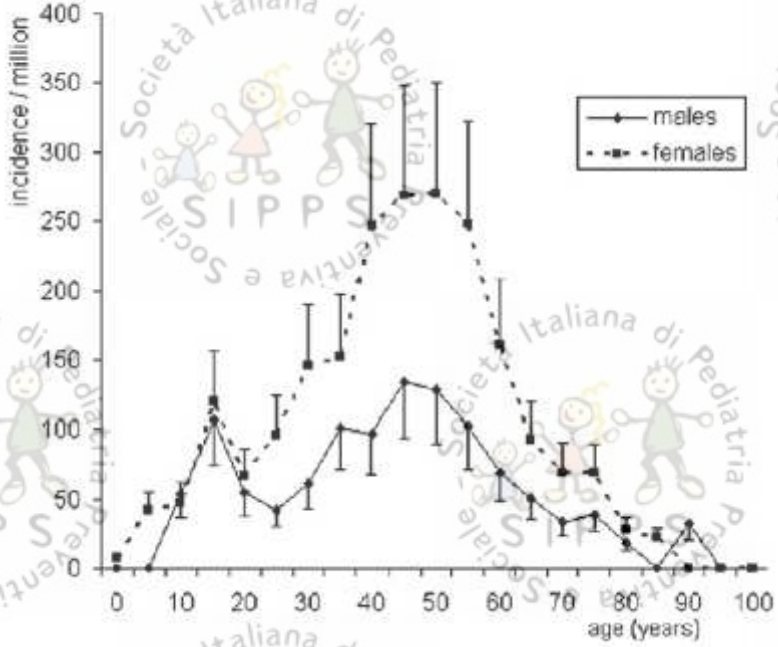

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	HIS-IgE (%)	HSI-non-IgE (%)
Cutaneous symptoms	83.6	97.9
Cardiovascular symptoms	42.62	20.83
Bronchospasm	42.62	15.28
Atopy	31.15	23.6
Asthma	14.75	11.81
Drug intolerance	15.58	20.14
Food intolerance	13.93	4.17

Clinical implications of cross-reactive food allergens Scott H. Sicherer

J Allergy Clin Immunol 2001;108:881-90.

Una reazione crociata
(sensibilizzazione o reazione allergica)
può dipendere dalla presenza di:

allergeni comuni in alimenti simili

allergeni presenti in vegetali
di specie non correlate
dal punto di vista tassonomico

If Allergic to:	Risk of Reaction to at Least One:	Risk:
A legume* (peanut)	Other legumes (peas, lentils, beans)	5%
A tree nut (walnut)	Other tree nuts (brazil, cashew, hazelnut)	37%
A fish* (salmon)	Other fish (swordfish, sole)	50%
A shellfish (shrimp)	Other shellfish (crab, lobster)	75%
A grain* (wheat)	Other grains (barley, rye)	20%
Cow's milk*	Beef (hamburger)	10%
Cow's milk*	Goat's milk (goat)	92%
Cow's milk*	Mare's milk (horse)	4%
Pollen (birch, ragweed)	Fruits/vegetables (apple, peach, honeydew)	55%
Peach*	Other Rosaceae (plum, pear, apple, cherry)	55%
Melon* (cantaloupe)	Other fruits (avocado, watermelon, banana)	92%
Latex* (latex glove)	Fruits (avocado, kiwi, banana)	35%
Fruits (banana, kiwi, avocado)	Latex (latex glove)	11%

Latex-fruit syndrome

- 21% to 58%
- Most involved: chestnut, avocado, banana, kiwi
- Other infrequent foods: papaya, tomato, potatoes
- anaphylactic reactions caused by foods ranges from 50% to <5%

Position paper, JACI 2012

Pediatric Allergy and Immunology 2016. EAACI molecular allergology

- Propofol contiene lecitina di soia e di uovo
- La lecitina può contenere tracce di proteine

BJA

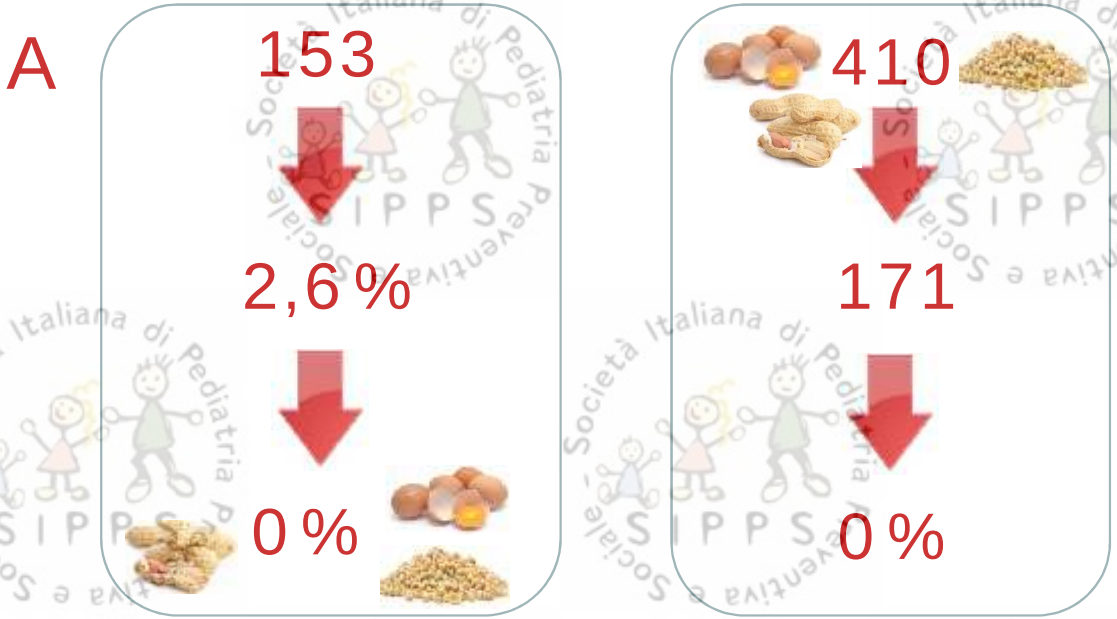
British Journal of Anaesthesia, 116 (1): 77–82 (2016)

doi: 10.1093/bja/aev360
Clinical Practice

No evidence for contraindications to the use of propofol in adults allergic to egg, soy or peanut†

L. L. Asserhøj*, H. Mosbech, M. Krøigaard and L. H. Garvey

Danish Anaesthesia Allergy Centre (DAAC), Allergy Clinic IIA-816, Copenhagen University Hospital, Gentofte, Kildegårdsvej 28, 2900 Hellerup, Denmark



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No evidence in support of a connection between allergy to propofol and allergy to egg, soy ot peanut

Allergy EUROPEAN JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY
Allergy 69 (2014) 388–394
EAACI

ORIGINAL ARTICLE GASTROINTESTINAL DISEASES

Propofol administration is safe in adult eosinophilic esophagitis patients sensitized to egg, soy, or peanut

J. Molina-Infante[1], A. Arias[2], D. Vara-Brenes[1], R. Prados-Manzano[1], J. Gonzalez-Cervera[3], M. Alvarado-Arenas[4] & A. J. Lucendo[5]

[1]Department of Gastroenterology, Hospital San Pedro de Alcantara, Caceres; [2]Research Unit, Hospital Alcazar de San Juan, Ciudad Real; [3]Department of Allergy, Hospital General de Tomelloso, Ciudad Real; [4]Department of Allergy, Hospital San Pedro de Alcantara, Caceres; [5]Department of Gastroenterology, Hospital General de Tomelloso, Ciudad Real, Spain

Society for Pediatric Anesthesia
Section Editor: Peter J. Davis
July 2011 • Volume 113 • Number 1

Allergic Reactions to Propofol in Egg-Allergic Children

Andrew Murphy, Medical Student,* Dianne E. Campbell, FRACP, PhD,*† David Baines, FANZCA,† and Sam Mehr, FRACP*

Società Italiana di Pediatria Preventiva e Sociale SIPPS

Recommendations

« In the case of a food allergy to egg or sot, propofol can be administered in patients allergic to eggs. Similarly, the presence of purified soybean oil in the excipient of propofol does not controindicate its use in patients with a food allergy to soy »

« The bottom line: Patients with soy or egg allergy can receive propofol without any special precautions. Any patient, whether soy or egg-allergy or not, who has an apparent allergic reaction to propofol should be evaluated by an allergist. »

« Propofol can be used for patients allergic to egg, except for anaphylactic subjects (due to unlikely,but possible, reaction to the lecithin contained in the drug) »

POH ALLERGY WORK UP

Società Italiana di Pediatria Preventiva e Sociale
SIPPS

- Cute non visibile (ricoperta da teli)
- Orticaria rara
- Paziente non cosciente
- Farmaci inotropi negativi
- No training in anafilassi

Spesso non identificata

Allergy EUROPEAN JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY
Allergy. 2019;1–13.
EAACI

An EAACI position paper on the investigation of perioperative immediate hypersensitivity reactions

Lene Heise Garvey[1,2] | Didier G. Ebo[3] | Paul-Michel Mertes[4] | Pascale Dewachter[5] | Tomaz Garcez[6] | Peter Kopac[7] | José Julio Laguna[8] | Anca Mirela Chiriac[9,10] | Ingrid Terreehorst[11] | Susanna Voltolini[12] | Kathrin Scherer[13]

- Individuare cause non allergologiche
- Percepire l'effetto collaterale di un farmaco somministrato
- Comprendere le comorbidità
- Valutare opportune strategie future
- Assicurarsi che tutte le possibili cause sono state considerate

POH ALLERGY WORK UP

Test immediati: entro un'ora

- Istamina
- Triptasi
- sIgE (ammonio quaternario)

Dopo 4-6 settimane

- sIgE (clorexedina)
- SPT
- Drug Provocation Test (Antibiotici, Fans)

ORIGINAL ARTICLE

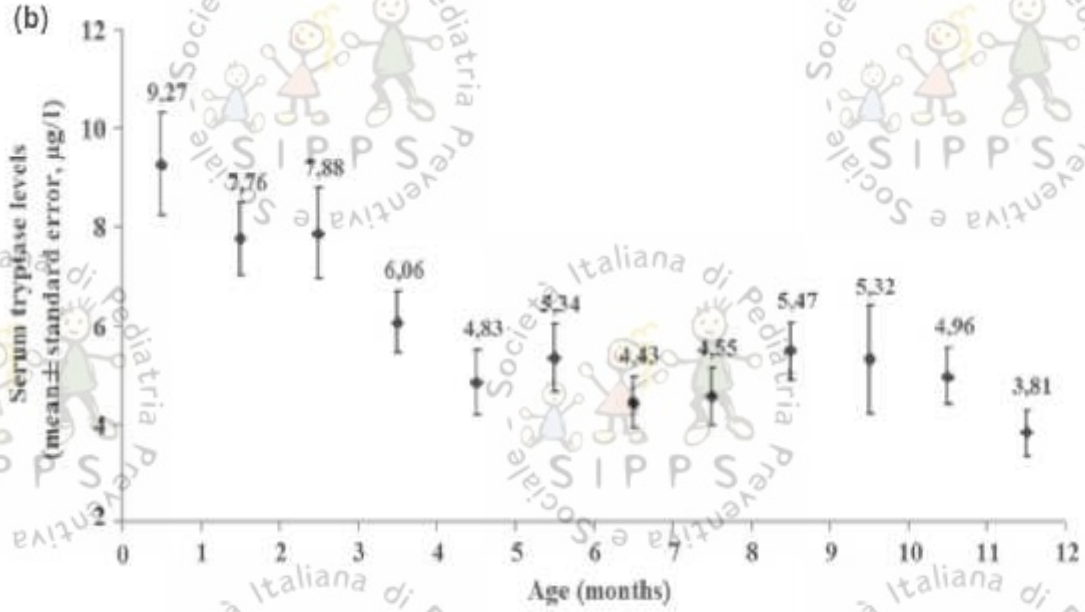
IN VITRO DIAGNOSIS AND BIOTECHNOLOGIES

Total serum tryptase levels are higher in young infants

Wahib Belhocine[1], Zouher Ibrahim[2], Véronique Grandné[1], Christophe Buffat[2], Philippe Robert[1,3], Delphine Gras[3], Isabelle Cleach[1], Pierre Bongrand[1,3], Pierre Carayon[2] & Joana Vitte[1,3]

[1]Assistance Publique-Hôpitaux de Marseille, Laboratoire d'Immunologie, Hôpital de La Conception, Marseille, France, [2]Assistance Publique-Hôpitaux de Marseille, Service Secteur Centre de Biochimie et Biologie Moléculaire, Hôpital de La Timone, Marseille, France, [3]INSERM UMR 600/CNRS 6212, Université de la Méditerranée, Marseille, France

To cite this article: Belhocine W, Ibrahim Z, Grandné V, Buffat C, Robert P, Gras D, Cleach I, Bongrand P, Carayon P, Vitte J. Total serum tryptase levels are higher in young infants. *Pediatr Allergy Immunol* 2011; **22**: 600–607.



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TRIPTASI

- > 11.4 microg/L (commercial kit): nel 95% dei soggetti in ABS il valore basale è inferiore
- > 25 microg/L (SFAR/SFA): 95% specificità nelle reazioni IgE-mediate
- > 1.2 per livello basale di triptasi + 2 microg/L

Allergy EUROPEAN JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY

EAACI

Allergy 2005; 60: 328–334

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ALLERGY
DOI: 10.1111/j.1398-9995.2005.00787.x

Original article

Anaphylaxis during anesthesia: results of a 12-year survey at a French pediatric center

Background: Following adverse reactions to anesthesia, tests are carried out to determine the mechanism of the reaction and to identify the agent responsible. No specific data are available in France concerning such skin tests in children.
Methods: Between 1989 and 2001, we assessed hypersensitivity reactions to general anesthesia in 68 children. Thirty underwent more than one operation, for congenital malformations. Immunoglobulin (Ig)E-mediated anaphylaxis was diagnosed on skin tests combined with the clinical history.
Results: Grade I, II and III reactions were observed in 20, 27 and 21 children, respectively. IgE-mediated anaphylaxis was diagnosed in 51 children: 31 (60.8%) for neuromuscular blocking agents (NMBA), 14 (27%) for latex, seven (14%) for colloids, five (9%) for opioids and six (12%) for hypnotics. Vecuronium was the NMBA causing the largest number of reactions. Cross reactivity to NMBA available in France was observed in 23 of 30 children (76%), particularly for vecuronium and atracurium or pancuronium.The estimated frequency of IgE mediated anaphylactic reactions was one in 2100 operations. Based on our results, 25 children subsequently received a different anesthetic with no adverse reaction.
Conclusions: As in adults, NMBA, then latex were responsible for most anaphylactic reactions during anesthesia. Our results confirm that skin tests with anesthetic agents are feasible and safe in children and improve the safety of subsequent anesthetic procedures.

C. Karila[1], D. Brunet-Langot[1], F. Labbez[2], O. Jacqmarcq[2], C. Ponvert[1], J. Paupe[1], P. Scheinmann[1], J. de Blic[1]

[1]Service de Pneumologie et d'Allergologie Pédiatriques; [2]Département d'Anesthésie et de Réanimation Chirurgicale Pédiatriques, Hôpital Necker-Enfants Malades, Paris Cedex, France

Key words: anaphylaxis; anesthesia; children; skin testing.

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Accepted for publication 7 August 2004

Società Italiana di Pediatria Preventiva e Sociale SIPPS

Table 1. Results of skin tests for the drugs used during anesthesia

Drugs used during anesthesia (*n*)	Positive skin tests (*n*)	Double sensitization
NMBA 52 (*n* = 49)	31/49 (63%)	
Pancuronium (5)	2	
Vecuronium (31)	24	9 (3 Latex/4 colloids/ 2 opioids)
Atracurium (8)	3	1 (Midazolam)
Mivacurium (3)	2	
Cis-atracurium (2)	0	
Suxamethonium (3)	0	
Latex (*n* = 60)	14 (23%)	5 (3 Vecuronium/1 colloid/ 1 propofol)
Hypnotics (*n* = 67)	6/67 (9%)	
Propofol (38)	2	1 (latex)
Thiopentone (14)	1	1 (Vecuronium)
Ketamine (3)	1	
Midazolam (8)	2	1 (Atracurium)
Dipotassium clorazepate (4)	0	
Opioids (*n* = 50)	5/50 (10%)	
Afentanyl (23)	2	1 (Vecuronium)
Sufenta (10)	2	1 (Vecuronium + colloid)*
Fentanyl (17)	1	
Colloids (*n* = 10)	7/10 (70%)	
Gelatin (4)	3	3 (2 Vecuronium/1 latex)
Hetastarch (6)	4	2 (Vecuronium)

NMBA, neuromuscular blocking agents.
*Triple sensitization.

Allergy EUROPEAN JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY EAACI

Allergy 2005: 60: 828–834

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ALLERGY
DOI: 10.1111/j.1398-9995.2005.00787.x

Original article

Anaphylaxis during anesthesia: results of a 12-year survey at a French pediatric center

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France

Accepted for publication 7 August 2004

Società Italiana di Pediatria Preventiva SIPPS

- Léa, 13 anni
- Verosimile shock anafilattico durante AG, causato probabilmente da allergia a suxamethonium
- Background: malformazioni congenite di tipo neurologico, soggetto multioperato (> 10)
- sIgE latex, clorexedina e NMBA
- Operata in urgenza due settimane dopo: no NMBA, ultilizzo di latex (come il primo episodio)
- Anafilassi

BJA

British Journal of Anaesthesia, 121 (1): 146–158 (2018)

doi: 10.1016/j.bja.2018.04.016

Advance Access Publication Date: 21 May 2018

Special Article

Cross-sectional study of perioperative drug and allergen exposure in UK practice in 2016: the 6th National Audit Project (NAP6) Allergen Survey

S. Marinho[1], H. Kemp[2], T. M. Cook[3,4,5,*], L. Farmer[6], S. Farooque[7], D. N. Lucas[8], T. Garcez[9], K. Floss[10], H. Torevell, M. Thomas[11], A. Warner[12], J. Hitchman[6], K. Ferguson[13], W. Egner[14,15], S. Nasser[16], S. Karanam[17], K.-L. Kong[17], N. McGuire[18], M. Bellamy[19,20] and N. J. N. Harper[21,22,6]

- 53 soggetti in età evolutiva/anno
- I centri pediatrici (11) hanno visto < 20 soggetti/anno (4 in media, range 1-9)
- Solo 1 coinvolgeva anestesista esperto in allergo-anestesia
- Nel 64% disponibile database dei pazienti
- Importante differenza nell'approccio dei casi in età evolutiva

BJA

British Journal of Anaesthesia, 121 (1): 146–158 (2018)

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- Panels limitati di NMBA e anestetitici: arginare distress legato a IDT
- Non sistematico latex testing: 20% elettivo
- Non sistematico clorexedina testing: 45% sistematico, 45% elettivo

Anaesthetic hypersensitivity reactions in France between 2011 and 2012: the 10th GERAP epidemiologic survey

C. Tacquard[1], O. Collange[1], P. Gomis[2], J.-M. Malinovsky[2], N. Petitpain[3], P. Demoly[4,5], S. Nicoll[6] and P. M. Mertes[1]

Acta Anaesthesiologica Scandinavica 61 (2017) 290–299

Table 5 Cross-sensitivity between NMBAs in France between 2011 and 2012.

	Suxamethonium	Rocuronium	Cisatracurium	Atracurium
Suxamethonium		16% (N = 33)	10.2% (N = 21)	11.2% (N = 23)
Rocuronium	45.2% (N = 14)		29% (N = 9)	22.6% (N = 7)
Cisatracurium	25% (N = 4)	31.3% (N = 5)		56.3% (N = 9)
Atracurium	16.7% (N = 7)	2.4% (N = 1)	38% (N = 16)	

NMBAs responsible for the reaction are listed vertically, while NMBAs tested for cross-sensitivity are listed horizontally.

- 2% Cross-sensitivity 56%
- 4,3% sensibilizzati a tutti NMBA testati

Popolazione a rischio e i bambini che necessitano un work-up allergologico pre-operatorio:

- pazienti con un'allergia documentata a un farmaco anestetico (se un'alternativa non è stata trovata) o al latice;
- pazienti con antecedenti di reazioni peri-operatorie non ancora testati;
- pazienti che presentano sintomi possibilmente allergici a contatto con latice;
- Pazienti che presentano sintomi allergici quando consumano kiwi, avocado, banana, castagna.

Nessun uomo è un’isola...