

Zvýšené šlgE na arašidy - alergia alebo senzibilizácia?



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Prehlásenie o konflikte záujmov

- prednášala som na viacerých odborných podujatiach sponzorovaných aj farmaceutickými spoločnosťami : ALK, Astra Zeneca, Benela, Ewopharma, GSK, MDS, Mundipharma, Zentiva, Novartis
- podieľala som sa na farmakologických štúdiách fy. Astra Zeneca a ALK
- dané skutočnosti neovplyvnili obsah, rozsah a formulácie v tejto prednáške.

Trochu štatistiky

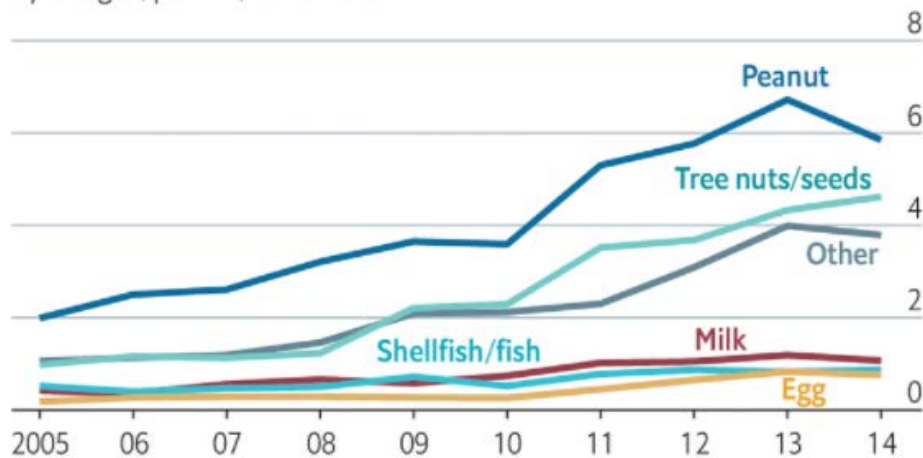
USA

Shock treatment

United States

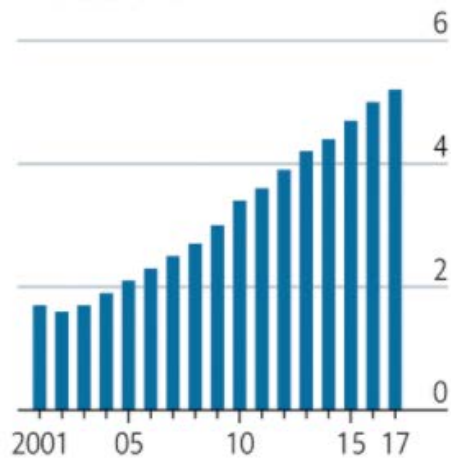
Emergency-department visits for food-induced anaphylaxis

By allergen, per 100,000 children



Peanut allergy incidence

% of total births



Sources: "National trends in emergency department visits and hospitalizations for food-induced anaphylaxis in US children" by Motosue et al., *Pediatric Allergy and Immunology* (2018); "Increased incidence and prevalence of peanut allergy in children and adolescents in the United States" by Lieberman et al., *Annals of Allergy, Asthma & Immunology* (2018)

The Economist

Food allergies affect around 17 million people across Europe, with peanut allergy being one of the most common of those. In fact, **peanut allergy doubled among children between 2005 and 2015**, and the **number of hospital admissions due to severe allergic reactions increased seven-fold.**

EAACI. Food Allergy & Anaphylaxis
Public Declaration, 2015

Diagnosis of food allergies with the use of 95% PPV for s-IgE and SPT

Food	95% PPV for s-IgE (kU/L)	95%PPV for SPT wheal diam.(mm)
Peanut	15	8
Tree nuts	15	8
Milk	32	8
Egg	6	7
Fish	20	7

Allergy testing in predicting outcome of open food challenge to peanut, **Shelly Rajput ,2017**, JACI, 2018 Jan;141(1):457-458

- **Spätne vyhodnotili 130 OFC s arašídami 2012-2016** (25 mg, 100 mg, 200 mg, 1 g, 5 g, 20 g cave! 30 mg, 100 mg, 300 MG; 1g; 3 g)
- **68% úspešne prešlo OFC. 24% bolo ukončených pri 25 mg, 34% pri 100- 1000 mg, a 42% reagovalo pri 5 g a viac arašídov. Len 1 patient mal príznaky anafylaxie (wheeze) a potreboval im. adrenalín.**
- jedno 2-ročné a jedno 5-ročné dieťa mali negatívne Ara h 2 mali pozit. OFC(Obidvaja vracanie a žihľavka po 5 g a viac arašídov.
- Ara h2 ≥ 0.4 kUA/L predikovalo výsledok OFC s arašídami signifikantne lepšie ako SPT alebo šlgE arašíd. A odvolávajú sa aj na podobné výsledky iných prác.
- **Navrhujú , aby Ara h 2 nahradil SPT a šlgE s arašídovým extraktom v rutinej skrínigovej diagnostike pri alergii na arašíd**

Prvé podanie a anafylaxia

- T.K. chlapec , 2005
- 1. podanie arašídovej chumky v 1 roku veku- opuch pery, viečok, žihľavka, sťažené dýchanie, „laryngitída“, svrbenie jazyka, celého tela
- Aj po 15 rokoch Ara h 2 nad 100 kU/l
- V jeho 13 rokoch zakúpil hokejový klub do šatne automat s orieškami. Akonáhle otvoril kamarát v šatni sáčok s arašídami, začal sa Timur dusiť, musel vyjsť von, svrbelo ho telo.
- Neustála dôsledná **eliminácia**. Chlapec, rodina, kamaráti , sú perfektne spolupracujúci (ostránili dobrovoľne automat)
- **Alergénová imunoterapia??**

ARTEMIS...PALISADE ...Palforzia 4-17 rr.

EMA 10/2021, Aimmune Therapeutics Ireland Limited

Table 1: Dose and capsule presentation for initial dose escalation

Dose	Capsule presentation per dose
0.5 mg	1 × 0.5 mg capsule
1 mg	1 × 1 mg capsule
1.5 mg	1 × 0.5 mg capsule + 1 × 1 mg capsule
3 mg	3 × 1 mg capsules
6 mg	6 × 1 mg capsules

Table 2: Daily dosing configuration for up-dosing

Dose level	Total daily dose	Presentation of dose (capsule colour)	Dose duration (weeks)
1	3 mg	3 × 1 mg capsules (red)	2
2	6 mg	6 × 1 mg capsules (red)	2
3	12 mg	2 × 1 mg capsules (red) 1 × 10 mg capsule (blue)	2
4	20 mg	1 × 20 mg capsule (white)	2
5	40 mg	2 × 20 mg capsules (white)	2
6	80 mg	4 × 20 mg capsules (white)	2
7	120 mg	1 × 20 mg capsule (white) 1 × 100 mg capsule (red)	2
8	160 mg	3 × 20 mg capsules (white) 1 × 100 mg capsule (red)	2
9	200 mg	2 × 100 mg capsules (red)	2
10	240 mg	2 × 20 mg capsules (white) 2 × 100 mg capsules (red)	2
11	300 mg	1 × 300 mg sachet	2

Table 3: Daily dosing configuration for maintenance

Presentation of dose	Total daily dose
1 × 300 mg sachet	300 mg

20-JAN-2022 [Peer-Reviewed Publication](#)

pod 4 rr.

THE LANCET: Initiating peanut oral immunotherapy in peanut-allergic children under age four may be more effective, first long term study suggests

- The study included **146 peanut-allergic children** and measured desensitisation (safe consumption of 5000mg peanut protein powder in a food challenge supervised by researchers after two and a half years of daily treatment) and remission (ability to repeat this food challenge 26 weeks after treatment ended).
- In children who received peanut oral immunotherapy **71% (68/96) achieved desensitisation** versus 2% (1/50) in the placebo group, while 21% (20/96) achieved remission versus 2% (1/50) in the the placebo group.
- Further analysis suggested that children who were **younger at the start of treatment were more likely than older children to achieve remission**. The authors call for more research to investigate this finding, as it may indicate a window of opportunity early in life when peanut oral immunotherapy is more effective.
- Children were closely supervised in this trial, and offered small quantities of peanut protein powder which was increased gradually to 2000 mg daily (equivalent to 6 peanuts).

ALE čo ak žiadne podanie a hneď pozitívne šIgE ?
Kvalita života



A.P. 2006-

1. vyš. v 14 mesiacoch s AD- SCORAD 46

+ nádchy od narodenia

Euroline 10 potravinových a 10 inhalačných alergénov: pozitívne :
VB, arašíd 7,48 kU/I, mlieko, roztoče, breza

Th: eliminácia arašídov doteraz. Ale...

Správne odpovede znižujú napätie a zvyšujú dôveru

- Čo s tými arašídami:
- Nemôže ani horalku?
- Má vôbec alergiu?
- Môže moje dieťa zomrieť po konzumácii aj malinkého množstva?
- Bude alergické do konca života?
- Čo urobiť, aby sa mu v budúcnosti nič nestalo?
- Potvrdenie do školy?
- Dať EpiPen?

šI gE Ara h 2 + BAT Ara h 2 a 6 + OFC

- The IgE and basophil responses to Ara h 2 and Ara h 6 are good predictors of peanut allergy in children, Francine C van Erp, JACI, 2017 Jan;139(1):358-360 : **0.1 and 5.0 kU_A/L Ara h2 62%** with the addition of **BAT Ara h 2 and 6 80%** were correctly predicted.
- AllergyGoAway.com, JACI 2011, 128:5 : **chance of passing oral challenge:** Ara h <0.35 kU 76%, 2 kU <50%, 15 kU <5%, SPT 2 mm

Otvorený provokačný test

1.d. 0,11g ara

15 minút

2.d. 0,38g

15 minút

3.d. 1,15g

15 minút

4.d. 3,85g

15 minút

5. d. 19,2g

15 minút

6. dávka 76g

Sledovať 1-4 hodiny

100g arašídov = 26 g bielkoviny

potrebujeme vedieť koľko g arašídov odvážiť, aby sme mali 0,03g bielkoviny

$$26/100 = 0,03/x$$

Ďakujem za pozornosť

dovidenia !