



ANNA, 29 YEARS HARMLESS CELERY & SPICES?

CLINICAL CONTEXT

- Anna has allergic rhinitis in late summer
- **Reactions to celery**
(especially reactions to processed foods)
- Symptoms: oral itching, anaphylactic episodes
- Initial extract-based test: negative

Wrong
assumption,
risk of life



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ALLERGY XPLOER CASE STUDY

HOW USING ALEX³ CHANGED ANNA'S DIAGNOSIS



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EXCERPT FROM ANNA’S TEST RESULTS

Total IgE result: 245 kU/L

Reference range total IgE
Adults < 100 kU/L

Allergen Source	Result	
Celery Extract	Negative	
Allergen (IgE)	Result	Reference Range Interpretation
Art v 1 (Plant Defensin)	15.6 kU _A /L	Positive
Api g 1 (PR-10)	<0.3 kU _A /L	Negative
Api g 2 (nsLTP)	<0.3 kU _A /L	Negative
Api g 6 (nsLTP)	<0.3 kU _A /L	Negative
Api g 7 (Plant Defensin)	7.4 kU _A /L	Positive
Amb a 1 (Pectate Lyase)	<0.3 kU _A /L	Negative
Amb a 4 (Plant Defensin)	8.4 kU _A /L	Positive
Art v 3 (nsLTP)	<0.3 kU _A /L	Negative
Phl p 7 (Polcalcin)	<0.3 kU _A /L	Negative
Phl p 12 (Profilin)	<0.3 kU _A /L	Negative



HOW ALEX³ CHANGED ANNA’S DIAGNOSIS

MOLECULAR ALLERGY DIAGNOSTICS

identified Api g 7 as the cause of Anna’s severe reactions. This **allergen is underrepresented in most extract-based tests**, explaining the previous false negatives.

MOLECULAR RESOLUTION OF CROSS-REACTIVITY

demonstrated that Api g 7 is highly cross-reactive to **Art v 1**, confirming mugwort as the **primary sensitiser** and celery as the **culprit allergen source**.

MULTIPLEX TEST

ruled out other plant-food allergy causes (PR-10, nsLTP), which helped focus the diagnosis and avoid blaming the wrong allergens.



BENEFITS FOR THE DOCTOR

Avoided misdiagnosis of severe celery allergy

No overlooked allergic sensitisation

Provided clear justification for allergen avoidance and prescription of emergency medication

Able to prescribe mugwort immunotherapy in a targeted way, while ruling out ragweed AIT based on negative Amb a 1



HOW IT CHANGED ANNA’S LIFE

Found trigger missing in standard tests

Anna finally understands **what is causing her symptoms**, especially in cooked or processed celery (spice) containing foods.

Clear guidance on celery avoidance

She now knows to **avoid celery in all forms**, including spice mixes and pre-packaged meals, reducing the risk of future reactions.

Emergency medication prescribed

She is now equipped with an **adrenaline auto-injector** and can act quickly in case of recurrence.

Relief from uncertainty and conflicting results

The explanation of mugwort-celery cross-reactivity resolved confusion caused by **negative celery extract test results**.

Opportunity for effective therapy

Mugwort AIT is now a viable option to reduce future pollen and cross-reactive food symptoms, improving long-term management.

COMPREHENSIVE. SPECIFIC. EFFICIENT.