A WOOD WORK APPRENTICE WITH ASTHMA

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A Case-Report

Florian was born in 1985. He is a wood worker apprentice involved in the “Compagnon” community.

An online discussion forum and CME quiz on this case can be found at:
http://www.eaaci.net/site/content.php?i=17&sel=400
REASON FOR CONSULTING

Florian comes for the first time at the pneumo allergology consultation on November 2004. The week before he was suffering from cough and dyspnoea and then of asthma crisis just after having swept out the work room, full of exotic wood ‘Monvingui’ sawdust.

He has been working for 5 years in his father’s wood workshop without any problem.

No disease has been noticed in his past. He doesn’t smoke. Atopic manifestations, intolerance to food or to treatment (especially NSAI) are absent. No atopic background has been underlined in his parents and relatives.

CLINICAL EXAMINATION AND INVESTIGATIONS

1. On the functional level we notice

Dyspnea grade II for fast walking
Every night Florian is awaken at 2 o’clock with cough.
His nose itches him with water-like discharge and sneezing. There is no smelling loss.
Conjunctives itch him
His face is slightly inflated.

2. From physical examination we learn that

Nose mucosa is inflammatory
Breath auscultation is normal
DEP = 450 L/Mn (normal 560)

3. Investigations performed

- Spirometry is performed : FEV1 = 3.37 L (79% of expected) not modified by inhaled beta 2 agonist (+5%)

- A first skin testing is carried out including :

ICDRG patch testing with reading at 48h & 72h - negative
Aero allergen and food allergen prick testing negative
Prick and patch test to pine, oak, iroko, Monvingui woods - negative.

Antihistamine and antiasthmatic treatment are prescribed. Stopping working, symptoms disappear.

EVOLUTION

A month later, Florian is again at work. When a fellow of his begins to start sticking wood, Florian feels increasingly bad with sneezing and wheezing. In a few minutes asthma is increasing to acute crisis.

The glue concerned contains isocyanides and other small molecules.
Unfortunately patch test, specific Ig E and challenge tests to isocyanides versus placebo will be negative.

Three weeks later, on the first day Florian comes back to work, in the evening, work finishing, he feels bad. Before going to the Mc Donald restaurant he has just a little rest in his bedroom. His face begins to itch him. At Mc Donalds he orders a cheeseburger with coca cola. Before eating or drinking it, his bad feeling worsens with cough, wheezing, face angioedema. He has to go to the hospital emergency unit.

At this step it is decided to list all potential allergen existing in Florian’s environment : workroom, bedroom ... We find out a polyester moss in the bed pillow which reacts at 15’ in direct skin contact test. So we decide to look for other professional product containing polyester and we find the glue responsible of the last asthma crisis. Contact testing is performed: slightly positive at 15’ with erythema and pruritus the test is negative at 48h. We are expecting for a respiratory provocation test with the glue.

**CONCLUSION**

Asthma and angioedema occurring in a non-atopic patient exposed to wood occupational allergens. Because of the non allergic past we are oriented to small molecule intolerance.
We conclude in an occupational “allergy” to polyester.
References


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