7. Asnani M, Char G, Reid M, et al. Intrathoracic and pelvic extramedullary hematopoiesis in sickle cell disease: a case report. *West Indian Med J* 2007; 56(6):540-3.
8. Verani R, Olson J, Moake JL. Intrathoracic extramedullary hematopoiesis: report of a case in a patient with sickle-cell disease-beta-thalassemia. *Am J Clin Pathol* 1980;73(1):133-7.
9. Arkadopoulos N, Kyriazi M, Yiallourou AI, et al. A rare coexistence of adrenal cavernous hemangioma with extramedullar hemopoietic tissue: a case report and brief review of the literature. *World J Surg Oncol* 2009;7:13.

Chicken Meat Anaphylaxis in a Child with No Allergies to Eggs or Feathers

Ceren Can*[1], MD; Mehtap Yazicioglu[1], MD; Gokce Ciplak[2], MD

[1]Department of Pediatric Allergy, [2]Gokce Ciplak, Department of Pediatrics, Trakya University Faculty of Medicine, Edirne, Turkey

Received: Mar *11, 2012*; Accepted: *Sep 16, 2014*;
First Online Available: *Dec 12, 2014*

Poultry meat is very popular in today's healthy diet. Despite the fact that chicken meat is widely consumed, allergy to chicken meat is rarely reported[1]. However, we present here a case of a child with chicken meat anaphylaxis, yet who has experienced no allergies to eggs or to feathers.

A fifteen-year-old male patient with a personal history of chicken meat allergy was referred to our clinic. Aged seven, he experienced angioedema of the lips, redness of the face and trunk, itching eyes, and hoarseness five minutes after he ate chicken meat. His symptoms gradually resolved without admission to hospital. Subsequently, he did not consume any chicken meat until last year (2013), when he reported nasal itching and irritability while passing by restaurants serving chicken doner kebab. Last year, he also reported similar complaints after consuming chicken wings. He was admitted to a public hospital where symptomatic treatment was given. He was advised not to eat chicken meat and continued to display similar symptoms whenever he failed to comply with the diet and did consume it. He never ate turkey, duck, or goose, and was tolerant to eggs. He had no physical contact with birds. His personal and family history was unremarkable, and he had no known drug allergies, including antibiotics. His physical examination was normal.

Laboratory results on admission: CBC with white blood cell differential was within normal range; serum total IgE was 351 IU/ml. Skin prick tests (SPTs) with commercial allergenic extracts of chicken (Alyostal Stallergenes, France), egg white, and egg yolk (ALK Abello, Denmark) were positive. SPT was negative for a feather mixture (Alyostal Stallergenes, France). Skin prick–prick tests (PPTs) were performed with raw and cooked chicken and turkey meat: they were all positive (Fig 1). Both SPTs with the same commercial allergenic extracts and PPTs with raw and cooked chicken meat were performed on four healthy, non-atopic adult volunteers, all resulting negative. The specific IgE serum level for chicken meat in our patient was 10.20 kU/L (Class III) (chemiluminescence immunoassay). An oral challenge test with chicken meat was not performed due to the risk of precipitating a severe reaction. The clinical history of our patient and the results of in vivo and in vitro tests were compatible with chicken meat allergy. We advised him not to consume any avian meats and prescribed an epinephrine autoinjector to use in case of anaphylactic emergency.

Allergic reactions to chicken meat are very rare[1]. The prevalence of chicken meat allergy in food allergic patients is 0.6%–5%[2]. Patients with chicken meat allergy can be separated into two

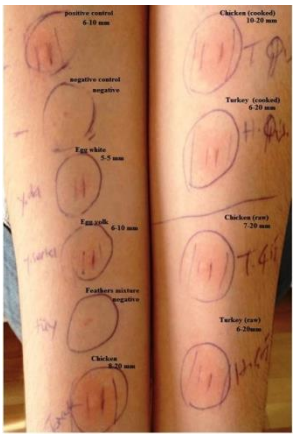

Fig. 1: Skin prick tests with commercial allergenic extracts of chicken, egg white, egg yolk, feather mixture, skin prick-prick tests with raw and cooked chicken and turkey meat

*** Corresponding Author; Address:** Department of Pediatric Allergy, Trakya University , Edirne, Turkey
E-mail: cereni35@yahoo.com

groups: those who have chicken meat only allergy[1,3], and a second group, a subset of 'bird–egg syndrome' with allergies to chicken meat, egg yolks, and other bird allergens from serum and feathers[4,5].

The most reported symptoms of allergy to chicken meat are urticaria[6], oral allergy syndrome[7], and non-IgE mediated colitis[8]. A few cases of anaphylaxis due to chicken meat have been reported: allergy to chicken meat only beginning from childhood in two cases[6,9]; allergy to chicken meat only in two adults[1,3]; a single case report of a child with bird–egg syndrome[4]. Our case represents the third reported case of chicken meat anaphylaxis in children with no allergies to eggs or feathers.

In our patient, SPTs were found to be positive with commercial allergenic extracts of egg white, egg yolk, and chicken. However, he was able to tolerate eggs. His SPT with the feather mixture was negative. Gal d 5 (alpha-livetin) is believed to be the causative antigen of bird–egg syndrome[10]. Although IgE reactivity against Gal d 5 can be reduced 88% by heating[1], skin PPTs performed with both raw and cooked chicken and turkey meat were positive in our patient.

Recently, muscle alpha-parvalbumin and myosin light chain 1 (MLC) have been identified as new allergens in chicken meat allergy[3]. Unfortunately, we could not carry out a further investigation to determine allergenic components such as immunoblotting or mass spectrometry. However, the patient's tolerance of eggs led us to believe that allergens such as MLC might be the responsible antigens in our patient's case.

The causative antigen in chicken meat only allergy is not known for certain. Antibiotics given to chicken via chicken feed have been thought to be responsible[1]. However, our patient had no known antibiotic allergy.

The patient had never before consumed turkey. However, since IgE binding to alpha-parvalbumin and myosin has been identified in turkey meat[3], we advised him not to eat turkey meat due to cross-reactivity.

We have presented this case because of the rarity of allergy to chicken meat and because we wish to attract attention to chicken meat allergy without bird–egg syndrome.

Key words: Chicken; Meat; Anaphylaxis; Eggs; Feathers

References

1. Zacharisen MC. Severe allergy to chicken meat. *WMJ* 2006;105(5):50-2.
2. Besler M, Restani P. Chicken meat (Gallus domesticus). *Internet Symposium on Food Allergens* 2001;3(4):193-201.
3. González-Mancebo E, Pastor C, González-de-Olano D, et al. Identification of allergens in chicken meat allergy. *J Investig Allergol Clin Immunol* 2011;21(4): 326-7.
4. Cheikh Rouhou S, Bachouch I, Racil H, et al. Anaphylaxis due to chicken meat. *Rev Mal Respir* 2012;29(1):98-100.
5. Nevot Falcó S, Casas Ramisa R, Lleonart Bellfill R. Bird-egg syndrome in children. *Allergol Immunopathol (Madr)* 2003;31(3):161-5.
6. Cahen YD, Fritsch R, Wuthrich B. Food allergy with monovalent sensitivity to poultry meat. *Clin Exp Allergy* 1998;28(8):1026-30.
7. Vila L, Barbarin E, Sanz ML.Chicken meat induces oral allergy syndrome: a case report. *Ann Allergy Asthma Immunol* 1998;80(2):195-6.
8. Vandenplas Y, Edelman R, Sacre L. Chicken –induced anaphylactoid reaction and colitis. *J Ped Gastro Nutrition* 1994;19(2):240-1.
9. Liccardi G, Szepfalusi Z, Noschese P, et al. Allergy to chicken meat without sensitization to egg proteins: a case report. *J Allergy Clin Immunol* 1997;100(4): 577-9.
10. Quirce S, Marañón F, Umpiérrez A, et al. Chicken serum albumin (Gal d 5*) is a partly heat-labile inhalant and food allergen implicated in the bird-egg syndrome. *Allergy* 2001;56(8):754-62.

Unusual Presentation of Congenital Neuroblastoma as Persistent Respiratory Distress and Fever from Age of 13 Days in an Infant: A Case Report

Deepak Sharma; Jaivinder Yadav; Eva Garg

Department of Pediatrics, PtBDS PGIMS Rohtak, Haryana, India

Received: Sep *17, 2013*; Accepted: *Mar 09, 2014*;
First Online Available: *Apr 15, 2014*

Dear Editor

Neuroblastoma, an embryonal tumor arising from the sympathetic nervous system, is the most common neonatal malignancy that accounts for >20% of neonatal cancers[1]. The most common location for neuroblastoma to originate (i.e., the primary tumor) is on the adrenal glands but

* **Corresponding Author; Address:** Department of Pediatrics, Pt.B.D.S PGIMS, Rohtak, Haryana, India
E-mail: dr.deepak.rohtak@gmail.com