CYREX® Laboratories

CLINICAL SPECIFICATIONS

MILLET

Antigen Made From:

Whole Millet kernel

Associated With:

Allergy[1]
Anti-thyroid effect[2]
Asthma[3]
Atopic dermatitis[4]
Respiratory disease[4]

Known Cross-Reactions: Rice;[5,6] Wheat, Corn;[6] Sorghum,[7] Gliadin;[8] Triiodothyronine(T3)[9]

Clinical Significance:

The presence of antibodies to Millet is an indication of food immune reactivity. The offending food and its known cross-reactive foods should be eliminated from the diet. Millet is primarily consumed in Asian countries, where it is a food crop. In the US, millet is primarily grown for fodder however it is becoming popular as a health food. Patients with known thyroid disorders should abstain from ingesting Millet as it is a goitrogen.

References:

1. Parker et al. Anaphylaxis after ingestion of millet seeds. J Allergy Clin Immunol, 1981; 61(1):78-80.
2. Gaitan et al. Antithyroid effects in vivo and in vitro of vitexin: a C-glucosylflavone in millet. J Clin Endocrinol Metab, 1995; 80(4):114-1147.
3. Rombold et al. Immediate-type respiratory allergy to millet-containing seed mixture of bird food. World Allergy Org J, 2008; 1(8):135-137.
4. Urisu et al. 16-kilodalton rice protein is one of the major allergens in rice grain extract and responsible for cross-allergenicity between cereal grains in the Poaceae family. Int Arch Allergy Appl Immunol, 1991; 96(3):244-52.
5. Yamada et al. The involvement of rice protein 16KD in cross-allergenicity between antigens in rice, wheat, corn, Japanese millet, Italian millet. [Japanese] Arerugi, 1991; 40(12):1485-92.
6. Hemmer et al. Food Allergy to millet and cross-reactivity with rice, corn and other cereals. Allergology International, 2017; 66:490-492.
7. Parameswaran and Thayumanavan. Isolation and characterization of a 20 kD prolamin from kodo millet (Paspalum scrobiculatum) (L.): homology with other millets and cereals. Plant Foods Human Nutr, 1997; 50:359-373.
8. Vojdani and Tarash. Cross-reaction between gliadin and different food and tissue antigens, Food Nutri Sci, 2013; 4:20-32.
9. Kharrazian, et al. Immunological reactivity using monoclonal and polyclonal antibodies of autoimmune thyroid target sites with dietary proteins. J Thyroid Res, 2017; 2017:4354723.