AIP gene

The AIP gene provides instructions for making a protein called aryl hydrocarbon interacting protein (AIP). Although AIP's function is not well understood, it is known to interact with numerous other proteins, including one called the aryl hydrocarbon receptor. Through these interactions, AIP likely helps regulate certain cell processes, such as the growth and division (proliferation) of cells, the process by which cells mature to carry out specific functions (differentiation), and cell survival. This protein is thought to act as a tumor suppressor, which means it normally helps prevent cells from proliferating in an uncontrolled way.

The genetic variations of the MicroRNAs genes related with HMGA2 and AIP genes were not seen in a study of Armagan et al. Although there is no relationship between HMGA2-rs1351394 polymorphism and acromegaly disease, T allele was associated with some clinical features related to adenoma in patients with acromegaly [1].

Case report

Marques et al. report a five-generation kindred with two brothers with pituitary gigantism due to AIP mutation-positive GH-secreting pituitary neuroendocrine tumors and their first-cousin coincidently also having gigantism due to Marfan syndrome [2].

1)
Armagan DM, Akdemir AS, Ozkaya HM, et al. SNPs of miR-23b, miR-107 and HMGA2 and their Relations with the Response to Medical Treatment in Acromegaly Patients [published online ahead of print, 2020 Aug 24]. Exp Clin Endocrinol Diabetes. 2020;10.1055/a-1185-9121. doi:10.1055/a-1185-9121

2)
Marques P, Collier D, Barkan A, Korbonits M. Coexisting pituitary and non-pituitary gigantism in the same family. Clin Endocrinol (Oxf). 2018 Sep 17. doi: 10.1111/cen.13852. [Epub ahead of print] PubMed PMID: 30223298.