

Title: Finding FH in Al Ain – United Arab Emirates

Category: Prevention

Abstract

Synopsis: Studying the characteristics of lipid disorders and addressing care-gaps in patients attending Imperial College London Diabetes Center in Al Ain, United Arab Emirates. For this purpose, a dedicated lipid disorder clinic led by a trained lipidologist was established in December 2017.

Objective:

- To treat complex cases of uncontrolled Hyperlipidemia using lifestyle modifications and medications including statins, Ezetimibe, and PCSK9 inhibitors.
- To identify individuals with Familial Hyperlipidemia using Dutch Lipid Clinic Network criteria, confirm with genetic tests, and offer CASCADE screening to relatives of index cases.
- To treat statin intolerant individuals.

Design: A dedicated lipid clinic was established for the purpose of identifying and treating complex lipid disorders. Specified criteria for referral to the lipid clinic were introduced. The lipid clinic was staffed by a lipidologist certified by the American Board of Clinical Lipidology and supported by a clinic coordinator, reception team leader, educator and registered dietician.

Between December 2017-December 2018, 441 patients were seen in the lipid clinic. Of these, 214 patients were new and 227 patients were seen in follow up. Among the new patients, 102 were males and 139 were females. Age range was 3-76 years.

Genetic tests were done in 145 patients using Dutch Lipid Clinic Network criteria and sent to Viapath Genetics Laboratory at Guy's Hospital London, United Kingdom. Genetic tests included tests for LDLR, PCSK9, LDLRAP1, and exon 26 of APOB genes.

Results: Nine patients were diagnosed with Homozygous LDLRAP1, four of them also had heterozygous variants of unknown significance.

Twenty patients were found to have different heterozygous variants and three of them also had heterozygous variants of unknown significance.

Twenty-six were identified with heterozygous variants of unknown significance.

Eighty-one patients had no clear pathogenic sequence variant detected.

Nine are still awaiting results.

Genetic tests were not done in sixty-nine patients due to various reasons.

Lipoprotein (a) was >75nmol/L in twenty-nine patients.

Conclusion: Familial Hyperlipidemia is common in our patient population due to consanguinity and large family size. The importance of a clinic dedicated to lipid disorders is instrumental in identifying Familial Hyperlipidemia, which was previously not well recognized in Al Ain.