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Is *MTHFR* C677T Gene Polymorphism Associated with Hypertension in Nigerians?

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Background: Essential hypertension is very common in Nigeria. The cause is unknown. Genetic factors have been postulated by some authors as a possible risk factor. Such genetic factors include the mutation of methylenetetrahydrofolate reductase (MTHFR) gene.
Aim: This study aimed to document the allelic and genotype frequencies and distribution among hypertensive and healthy Nigerian population.
Materials and Methods: This was a cross-sectional study involving 75 consenting subjects (50 cases and 25 controls) at the Cardiology Clinic of the Lagos University Teaching Hospital, Lagos, Nigeria. Structured interviewer administered questionnaire was used to obtain socio-demographic and clinical history of subjects. About 5mls of venous blood was collected from each subject by a trained phlebotomist into EDTA bottle and stored at 4°C until ready for analysis. Genomic DNA extraction was done after which polymerase chain reaction was carried out. This was followed by restriction enzyme digestion and agarose gel electrophoresis. The digestion products were then visualized with SYBR Safe (Monitagen) using Sygene bio-imaging system.

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