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Research Article

**A COMPARATIVE STUDY ON SEROLOGIC STATUSES OF
HELICOBACTER PYLORI AND UNSTABLE ANGINA**¹Dr. Faheem Ali Mohsin, ²Dr. Sania Sarfraz, ³Dr. Saman Asghar Kashmiri¹RHC 87WB, Vehari²BHU Machar Khadi, Sargodha³BHU Mandiala Gujrat**Abstract:**

Objective: The objective of this research work is to conclude whether unbalanced angina as an association with the infection due to the infection of *H. pylori*.

Methodology: The research was carried out at Nishtar Hospital Multan and the duration of this study was from 2017 to 2018. We calculated the amounts of HP-IgG in serum of the patients in the CCU of the hospital. The samples of blood took from ninety-six participants (average age of fifty-six years) with unbalanced or unstable angina (UA) according to method prescribed by AHA (American Heart Association). Ninety-six healthy controls also gave the samples of blood who were free from CVD (cardiovascular disease) and with an average age of fifty-eight years. The samples of blood stored at a temperature of twenty centigrade. The association of the outcomes of serology researched with unstable angina. For the calculation of odd ratios and ninety-five percent of CI (confidence intervals), Chi square method was in use, managing for sex, age & well-known risk aspects.

Results: We found 79 patients suffering of UA and fifty-five control participants displayed the positivity in the anti HP-IgG. Three was the odds ratio and ninety-five percent was the confidence interval. There was a positive association between the positivity of HP-IgG & UA. There was no age & gender significant disparity in the positivity of HP-IgG of the patients and their healthy controls.

Conclusion: This research work showed an important relation between the positivity of the HP-IgG & UA.

Keywords: Hypertension, Atherosclerosis, Cardiac Enzymes, Cardio Vascular Diseases, Chlamydia pneumonia, Angina.

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INTRODUCTION:

Over the period of past many years, CAD (Coronary Artery Disease) is a very serious health problem in the world population with more than fifty percent deaths accredited to its problems [1]. The reasons of the atherosclerosis are not well known, although many dangerous aspects like smoking, high blood sugar, family background history and hypertension are well recognized. These risk factors are responsible for about fifty percent of the overall risk of coronary artery disease [1, 2]. More than one hundred years ago, atherogenic impacts were the main causes of infections. The modern world abandoned this prediction and the previous concept that CHD has infections as its cause and development re-established in the current years [3]. Both viruses and bacteria are responsible for the swelling alterations available in atherosclerosis [4, 5].

Research work carried out in past many years had shown a connection between identifiers of swelling & CA (coronary atherosclerosis). Totally, this information has re-established concentration in the theory of infection of atherosclerosis & CHD [6]. The evidence of this infection does not have proof. The current research works concluded that the infections due to organisms as *H. pylori*, Chlamydia pneumonia and various types of pathogens found in teeth plays a vital role in the emergence of atherosclerosis. If this information is factual, then the treatment by antimicrobials can be beneficial in the secondary deterrence of chronic artery disease.

Many small case studies have completed the process of testing this prediction [2]. Many research works on the causes and development of the diseases have concluded the strong connection between infection of the *H. pylori* & CHD. Different research reports proved the strong association between infection of *H. pylori* & risk factors of the coronary diseases. Medical research works about the alterations of the risk factors of coronary disease after abolition of *H. pylori* are very less and conflicting [7]. The aim of this research work was to know about the association between the serological conditions about *H. pylori* with the availability of UA, which is not a solvable matter in this subject yet.

MATERIALS AND METHODS:

This research work was carried out in the Nishtar Hospital Multan in the duration from 2017 to 2018. The participants were suffering of UA and admitted in Nishtar Hospital Multan. The evaluation of the availability of anti HP-IgG carried out in all the

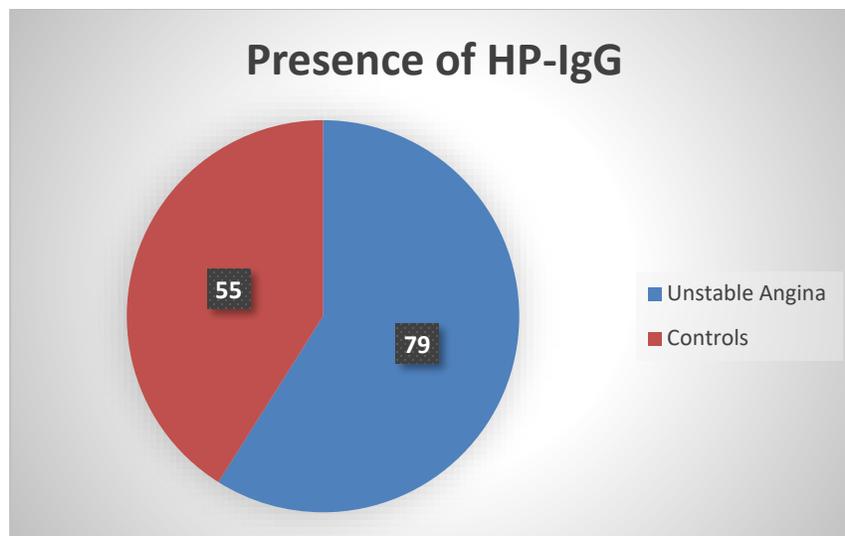
patients. There were 96 participants of this case study. The formula for the calculation of the sample size was $N = Z^2P(1P)/d^2$ in which N = size of the samples, Z = coefficient of the confidence ninety-five percent = 1.96, P (prevalence value) = 0.5 and d (distance value) = 0.1.

Patients having age above than thirty-five years, fulfilling the criteria prescribed by AHA were the participants of research work. The participants were separated into three sections. Those three sections were typical angina pectoris, atypical angina pectoris & non angina pectoris.

The patients with rise in the cardiac enzymes, alterations in the 2-EKG, continuous pain of angina, uncertain results of HP-IgG were not the part of this research work. A survey including the traits of demography and other associated variables carried out and data of every participant recorded for future use. Ninety-six healthy controls of same sex and age entered in the research work. Blood sample obtained from every participant and their healthy controls for anti HP-IgG with the help of ELISA procedure having sensitivity of ninety to ninety-five percent & specificity from ninety-five to ninety-eight percent. IgG antibody assessments for *H. pylori* carried out according to the commercial test systems. Chi square method was in use for the analysis of collected information. The calculations of odds ratio & ninety-five percent CI carried out after regulating the sex and age.

RESULTS:

There were ninety-six patients suffering of UA in this case group with an average of 56.48 \pm 12.91 years in which fifty-five percent were women. The healthy controls also included ninety-six persons with an average age of 58.03 \pm 11.53 years in whom fifty-two percent were women. Fifty-five members from healthy controls and 79 patients with UA showed a + anti HP-IgG. Six people from the group of healthy controls exited from research due to uncertain outcomes. Three was the odds ratio ninety-five percent CI. There was an important association between the positivity of HP-IgG and UA. There was not any gender & age disparity in the positivity of HP-IgG in the healthy controls and the patients. We found no association between serum amount of HP-IgG & seriousness of the medical results of NAP, AAP & TAP in the patients suffering of unstable angina.



DISCUSSION:

This research work elaborated an important association between the infection of *H. pylori* and UA. Our case study proves the role of *H. pylori* in increasing the danger of unstable angina. The sex and age managed investigations concluded no association between *H. pylori* and unstable angina. Various research works have concluded the connection between infection of *H. pylori* and unstable angina [8-11]. It is not clear that whether *H. pylori* infection has an association with unstable angina because bias was present in some case studies and small number of participants was also another cause. The outcome of this research work is similar to the results of case study conducted by Rekeinesky [8, 9], Stone [10] & Fraser [11]. These studies also reported the significant relation between *H. pylori* with the unstable angina.

Kowalski discovered a particular *H. pylori* deoxyribose nucleic acid in a coronary artery in the patients suffering of unstable angina but in patients with UA but that element was not available in the healthy participants [12]. Those research works support the results of this research work & management of antibiotic against *H. pylori*. Stone & his partners declared that anti *H. pylori* medicines minimized the risk of the unstable angina up to thirty-six percent in the participants [7]. Many research works ignored the association between *H. pylori* and unstable angina [13, 14]. Semija concluded no association between *H. pylori* and unstable angina [13]. Radke in his case study on the patients suffering of unstable angina was unable to discover HP-DNA in the artery [14].

This research work proves the results of the

association between infections of *H. pylori* with UA [8-12]. This case study is very rigorous but it has many restrictions. Both genders were the participants of this research work. The average age of the patients was about 56.48 \pm 12.91 years. The participants of this case study were low in quantity and the design of the case study was transverse. Therefore, it reduces strength in comparison to the researched work based on the populations. This case study depends on the testing of IgG and was not able to assess the DNA confirmation of *H. pylori* infection. The healthy controls of this research were the personnel from the hospital or patient's family members; high positivity is due to the direct connection to the infectious elements.

CONCLUSION:

This research work concluded the association between infection of *H. pylori* & UA. The infections caused by *H. pylori*, as proofed by HP-IgG positivity, had an association with the high risk of UA.

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