

**Review Form 3**

Journal Name:	<b>Journal of Advances in Medicine and Medical Research</b>
Manuscript Number:	<b>Ms_JAMMR_121578</b>
Title of the Manuscript:	<b>Association between GSTP1 (rs1695) and Human Papillomavirus infection in women from southern Brazil</b>
Type of the Article	<b>Original Research Article</b>

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**PART 1: Review Comments**

<b>Compulsory</b> REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<b>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</b>	This manuscript is significant for the scientific community because <b>it investigates the association between the GSTP1 (rs1695) polymorphism and susceptibility to HPV infection, a critical factor in cervical carcinogenesis.</b> It is the <b>first study conducted in Southern Brazil</b> to explore this association, providing valuable insights into population-specific genetic influences on HPV infection. The findings reveal that the <b>G allele and AG genotype are risk factors for HPV infection, highlighting the potential for these genetic markers to inform targeted prevention and treatment strategies.</b> This research enhances our understanding of the genetic and molecular mechanisms involved in cervical cancer development, contributing to personalized risk assessment and public health interventions.	
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	Yes, but I believe it would be better if it were <u>more scientifically detailed to cover the area of study.</u>  As a suggestion, <b>Association Between GSTP1 (rs1695) Polymorphism and Susceptibility to Human Papillomavirus (HPV) Infection in Women from Southern Brazil: A Case-Control Study</b>	

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<p><b>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</b></p>	<p>The abstract is generally comprehensive, covering essential elements such as background, objective, methodology, results, and conclusion. However, there are areas where clarity and detail could be improved. Here are some suggestions for improve article,</p> <p>1. While the background mentions the association between polymorphic variations in enzyme genes and cervical carcinogenesis, <u>it could benefit from a brief explanation of why understanding the relationship between GSTP1 polymorphism and HPV infection is crucial for public health or cancer prevention strategies.</u> EX; Polymorphic variations in enzyme genes involved in the detoxification of oxidative stress products, such as glutathione, have been associated with cervical carcinogenesis. <b>Understanding the relationship between GSTP1 polymorphism and human papillomavirus (HPV) infection, a key factor in neoplasia, is crucial for public health and cancer prevention strategies.</b></p> <p>2. The objective could be clearer by explicitly stating that the study focuses on women treated in the public health system in Southwest Paraná, Brazil. This contextual detail helps in understanding the study's relevance to specific demographics. So, it could be better to state like,</p> <p><b>This study aimed to</b> investigate the possible association between the GSTP1 (rs1695) polymorphism and susceptibility to HPV infection in <b>women</b> treated by the public health system in <b>Southwest Paraná, Brazil.</b></p> <p>3. In the Methodology section, 3.1 Detail the case-control design. It would be beneficial to <u>briefly describe the criteria for selecting cases and controls,</u> as well as <b>any inclusion or exclusion criteria applied in the study.</b> This information adds credibility to the methodology.</p> <p>3.2 Also, Clarify the T-ARMS method. A short explanation of the <u>Tetra Amplification Refractory Mutation System (T-ARMS) method would help readers unfamiliar with this technique understand how the GSTP1 polymorphism was assessed.</u></p> <p>As a suggestion, We conducted a case-control study involving 140 women, of which 39 were infected with HPV and 101 were not. Cases and controls were selected based on <b>specific inclusion and exclusion criteria.</b> The GSTP1 (rs1695) polymorphism was detected using the Tetra Amplification Refractory Mutation System (T-ARMS), <b>a method that allows for precise identification of genetic variations.</b> This study is the first in Southern Brazil to explore the association between rs1695 and susceptibility to HPV infection.</p> <p>4. The result section arranged with good scientific sound but we suggest some few modifications for improve paper quality.</p> <p>4.1 Include more statistical context clearly. While the results provide odds ratios and confidence intervals, including <b>the total number of participants analyzed for each allele could enhance understanding of the statistical significance and robustness of the findings.</b></p> <p>4.2 Also, Mention potential confounding factors too. <b>If any confounding variables were considered or controlled for in the analysis, mentioning them would strengthen the results section.</b></p> <p>As a suggestion, The analysis revealed a significant difference between the variants. The A allele (Ile) was protective against HPV infection, both alone (OR: 0.175; 95% CI 0.071-0.434; P &lt; 0.001) and in homozygosity (OR: 0.237; 95% CI 0.091-0.616; P &lt; 0.003). Conversely, the G</p>	
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	<p>(Val) allele was identified as a risk factor for HPV infection (OR: 4.22; 95% CI 1.623-10.989; P &lt; 0.003), increasing the risk by approximately four times. In heterozygosity (AG), the risk of viral infection was even higher (OR: 5.714; 95% CI 2.303-14.180; P &lt; 0.001). <b>The total number of participants analyzed for each allele was 138, adding robustness to these findings.</b></p> <p>5. The conclusion could be expanded to discuss the <b>potential implications of the findings for future research or clinical practice</b>, such as how this information might influence screening or treatment strategies for HPV-related conditions. Also, Including a statement about the need for <b>further research to validate these findings or explore additional genetic factors could provide a forward-looking perspective.</b></p> <p>As a suggestion, Our findings indicate that the G allele and the AG genotype are specific risk factors for HPV infection in the study population. <b>These results underscore the importance of further research to validate these findings and explore additional genetic factors that may influence susceptibility to HPV, with potential implications for screening and treatment strategies in clinical practice.</b></p> <p>6. As an additional suggestion, It, would be better if the <b>key words were in alphabetical order.</b></p> <p>Incorporating these suggestions could enhance the clarity and comprehensiveness of the abstract, making it more informative for readers and emphasizing the significance of the research findings.</p>	
<p><b>Are subsections and structure of the manuscript appropriate?</b></p>	<p>The manuscript is well-organized, with clear subsections that guide the reader through the study. However, the "<b>Results</b>" section could benefit from subheadings to break down the findings more clearly.</p> <p>Ex; 3. Results 3.1 Sociodemographic characteristics 3.2 Life style and behavioural patterns etc.</p>	
<p><b>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</b></p>	<p>The manuscript is scientifically robust and technically sound due to several key factors. <u>The case-control study design is well-suited</u> for investigating the association between the GSTP1 rs1695 genetic polymorphism and HPV infection, allowing for effective comparison of allele frequencies between affected and unaffected individuals. The use of the <u>Tetra Amplification Refractory Mutation System (T-ARMS) for genotyping is a reliable and accurate method</u>, ensuring dependable results. Despite a modest <u>sample size of 140 participants</u>, the study provides adequate statistical power for detecting significant associations. The statistical analysis, including <u>odds ratios, confidence intervals, and p-values</u>, is appropriately employed to quantify the risk associated with specific alleles and genotypes. Additionally, <u>this study is the first of its kind in Southern Brazil, contributing novel insights</u> into the genetic factors influencing HPV infection, which is crucial for understanding cervical carcinogenesis. Collectively, these aspects underscore the manuscript's scientific rigor and technical soundness, offering valuable contributions to HPV research and cervical cancer prevention.</p>	
<p><b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b></p>	<p>The references are adequate and up-to-date, covering the relevant literature. However, it would be beneficial to include recent studies from the past two years to ensure the manuscript reflects the latest advancements in the field.</p>	

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Minor REVISION comments <b>Is the language/English quality of the article suitable for scholarly communications?</b>	The manuscript is written in clear and concise English, suitable for scholarly communication. There are minor grammatical errors and typographical mistakes that need to be corrected. Go through and corrected these few errors too. Overall this manuscript is well written.	
<b>Optional/General</b> comments	Overall, this manuscript is a valuable addition to the literature. It is well-written and presents new findings that are important for the field. Addressing the minor revisions suggested will further strengthen the paper.	

**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

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