



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#">Journal of Advances in Medical and Pharmaceutical Sciences</a>      |
| Manuscript Number:       | Ms_JAMPS_19036                                                                  |
| Title of the Manuscript: | Pilot study of photoallergic reactions to UV filters among dental professionals |
| Type of the Article      | Original Research Article                                                       |

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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**PART 1: Review Comments**

|                                            | Reviewer's comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Author's comment (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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| <b><u>Compulsory</u></b> REVISION comments | <p>1) Overall this is a very poorly written paper. It is very difficult to understand it as there are multiple grammatical errors. I advise the authors to have the paper edited by a person proficient in the English language.</p> <p>2) If the target audience is medical, I doubt physicians at large will have enough background knowledge on this topic to understand many of the things here stated. It would be useful if the authors wrote an introduction defining the scope of the problem and providing basic information for the non-informed reader.</p> <p>3) I suggest that the purpose of the study is not to "to evaluate the incidence of photoallergic reactions" rather to evaluate or find out if there is a photosensitizing or photo allergic problem in the population studied.</p> | <p>1) Thanks the Reviewer for the advise – the paper was checked by proficient in English language person and the few found errors were corrected.</p> <p>2) The target audience are specialists of different fields of medicine as well as dental professionals – potentially occupationally exposed to the tested substances. During the course of the presented study we discussed the scientific idea and the results achieved with the participants as well as with numerous physicians – all of them were absolutely aware and had more than enough background knowledge on this topic. Nevertheless, some additional information was added in the Introduction section.</p> <p>3) Thank you, we do agree. The purpose is corrected to "<b>The purpose of the present pilot study was to evaluate if there are photoallergic reactions to selected UV filters among dental professionals (dentists, nurses and attendants) and dental patients.</b>"</p> |



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|  | <p>I suggest that the conclusion should only be “No statistically significant increased rate of sensitization to the studied photoallergens after UV-irradiation <del>among dental professionals</del> was observed” or otherwise that “this investigation failed to demonstrate any photosensitizing effect of the tested materials in the population studied”. The sample is too small to determine if there is a tendency to increased activity of certain materials in one of the groups. That statement belongs in the discussion.</p> | <p>4) The conclusion is changed as follows:<br/>“The present pilot investigation failed to demonstrate any photosensitizing effect. A slight photosensitizing action of Bis-GMA could be suggested, but the sample is too small to determine if there is a tendency to increased activity of certain materials. Further work is needed to validate reliability.”</p> |
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| <p><b>Minor</b> REVISION comments</p> | <p>The following are also minor suggested revisions:<br/>I use <i>italics</i> to quote authors text, and bold for my comments. I left the numbers identifying the lines so the authors can find the text easily</p> <p>Do references [2,3] refer to UV absorbers in adhesives or to the fact that photosensitization can occur?<br/>It is important to let the reader know, probably here, if this is a demonstrated fact</p> <p>-----</p> <p><i>In addition, leachables and degradation products from the dental materials as<br/>25 well as residuals from oral hygiene products and<br/>26 hence, may contribute to or be responsible for photoactivated reactions</i><br/><b>This statement needs a reference</b></p> <p>----</p> <p><i>It is of interest to discuss<br/>potential adverse effects, such as photosensitivity reactions among dental professionals<br/>27 and dental patients.</i></p> <p><b>Why? Background information needs to be provided to qualify this problem, otherwise how does the reader know that this is indeed a problem?</b></p> <p>-----</p> <p><i>The <b>purpose</b> of the present pilot study was to evaluate the incidence of photoallergic reactions to<br/>30 selected UV filters among dental professionals (dentists, nurses and attendants) and dental patients.</i></p> | <p>References [2,3] – now [4,5] refer to UV absorbers in adhesives. The occurrence of photosensitisation is not a categorically demonstrated fact, but still a hypothesis.</p> <p>A reference is added [6].</p> <p>In the present pilot study we really rise the hypothesis if there is a photosensitizing or photoallergic problem in the population studied. We <b>do agree</b> with the respected Reviewer to <b>re-formulate</b> the purpose of the study, as suggested above.</p> <p>The purpose is corrected to <b>“The purpose of the present pilot study was to evaluate if there are photoallergic reactions to selected UV filters among dental professionals</b></p> |
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|  | <p><b>The purpose of the study was rather to see if there is problem and not to study the incidence of the problem</b><br/>---</p> <p><i>At this point, one set should be covered with an 52 ultraviolet (UV) opaque material and the other irradiated with a calibrated metered broad-spectrum UVA source (UV-Therapy and Photodiagnosis system UV 236 PUVA) with a dose of 5 J/cm<sup>2</sup>53 .</i></p> <p><b>Do you mean both sites are treated but one is protected?</b><br/>-----</p> <p><i>IR irritant reaction</i><br/>59</p> <p><b>What is an irritant reaction?</b><br/>-----</p> <p><b>Table 3 should have a column for the probability information</b><br/>-----</p> <p><i>Higher was the incidence of positive reactions to Benzophenone-3 after UV-irradiation among 79 women (13.8% before vs 24.1% after UV-irradiation) and the group of dental patients (8.8% vs 20.6%), 80 but no statistical significance was established (P=.23, P=.75).</i></p> <p><b>The p should be immediately after each value</b></p> | <p><b>(dentists, nurses and attendants) and dental patients.”</b></p> <p>One side is treated and the other is additionally protected.</p> <p>Irritant reaction is described as “<b>Discrete patchy erythema without infiltration</b>” and is explained in table 2.</p> <p>Due to the lack of statistical significance we don’t think such information should be presented in the table.</p> <p>The p are put immediately after each value.</p> |
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|  | <p>----</p> <p><b>The results are not significant</b><br/> <b>The sample is very small. I do not think you can assume there is a tendency to more results in certain subgroups when the number of cases is so small (as you suggest from results in table 3 for the benzophenone group)</b></p> <p>-----</p> <p><i>Chemical ultraviolet (UV) filters have, over the last few decades, been increasingly used not only 98 in conventional sunscreen products but also in many cosmetics and toiletries. Allergic contact dermatitis 99 as well as photoallergic contact dermatitis reactions were well documented as a consequence of such 100 use.</i></p> <p><b>This needs a reference</b></p> <p>-----</p> <p><i><b>Benzophenones</b> are ultraviolet light filters that have been documented to cause adverse 103 cutaneous reactions, including contact and photocontact dermatitis, contact and photocontact urticaria, 104 and anaphylaxis.</i></p> <p><b>This continues to need a reference and should be part of an introduction where the problem is defined</b></p> <p>-----</p> <p><i>much controversy surrounds oxybenzone because of its possible hormonal and</i></p> | <p>We do agree.</p> <p>Reference [9] is added.</p> <p>References are added. We included this information in the discussion similarly as concerning the other substances tested.</p> |
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|  | <p><i>123 photoallergic effects, leading many countries to regulate its use [12, 13].</i></p> <p><b>What is oxybenzone. What is the relationship with Benzophenon 3? If they are the same product needs to be stated (as below with Benzophenone 4)</b></p> <p><b>Can Benzophenon and Benzophenone be used interchangeably?</b></p> <p>-----</p> <p><i>Generally,</i><br/><i>144 no risk of photosensitization to benzophenons in dentistry was established.</i></p> <p><b>I think this is a result: Use of these dental material do not elicit photosensitization.</b></p> <p>-----</p> <p><b>5. CONCLUSION</b><br/>205<br/><i>206 A pilot study was performed to evaluate the incidence of photoallergic reactions to selected UV</i><br/><i>207 filters among dental professionals and dental patients. No statistically significant increased rate of</i><br/><i>208 sensitization to the studied photoallergens after UV-irradiation among dental professionals was observed.</i><br/><i>209 A slight photosensitizing action of Bis-GMA could be suggested, however, need further work to validate</i><br/><i>210 reliability.</i></p> <p><b>I think that the conclusion is that this investigation failed to demonstrate any photosensitizing effect.</b></p> | <p>As stated at line 121 "benzophenone-3 (also known as oxybenzone)"</p> <p>This is not the topic of the present study.</p> <p>Corrected to "<b>Generally, the use of dental material containing benzophenons do not elicit photosensitization.</b>"</p> <p>As outlined above, the conclusion is changed as follows: "<b>The present pilot investigation failed to demonstrate any photosensitizing effect. A slight photosensitizing action of Bis-GMA could be suggested, but the sample is too small to determine if there is a tendency to increased activity of certain materials. Further work is needed to validate reliability.</b>"</p> |
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|                                         | <b>The sample is too small to determine if there is a tendency to increased activity of certain materials</b> |  |
| <b><u>Optional/General</u></b> comments |                                                                                                               |  |