



Review

Is There a Bidirectional Association between Polycystic Ovarian Syndrome and Periodontitis? A Systematic Review and Meta-analysis

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Supplementary material

Table 1. List of excluded articles

| | Number | Reference | Reason for exclusion |
|------|--------|--|------------------------|
| 2019 | 1 | Varghese, Arun, A. Julie Christy, B. Pratheeba, P. Saraswathy, and Sumathy Ravi. "Salivary Interleukin-6 Levels among Polycystic Ovary Syndrome (Pcos) Patients with and Without Chronic Periodontitis-A Comparitive Study." <i>International Journal of Innovative Research in Medical Science</i> 4, no. 09 (2019): 534-to. | Unrelated group |
| 2017 | 2 | Deepti, Tewari S, Narula SC, Singhal SR, Sharma RK. Effect of Non-Surgical Periodontal Therapy Along With Myo-Inositol on High-Sensitivity C-Reactive Protein and Insulin Resistance in Women With Polycystic Ovary Syndrome and Chronic Periodontitis: A Randomized Controlled Trial. <i>J Periodontol.</i> 2017;88(10):999–1011. doi:10.1902/jop.2017.170121 | No control group |
| 2017 | 3 | Akcalı A, Bostanci N, Özçaka Ö, et al. Gingival Inflammation and Salivary or Serum Granulocyte-Secreted Enzymes in Patients With Polycystic Ovary Syndrome. <i>J Periodontol.</i> 2017;88(11):1145–1152. doi:10.1902/jop.2017.170043 | No periodontitis group |
| 2017 | 4 | Nair SD, Varma S, Suragimath G, et al. Prevalence of periodontal disease in women with polycystic ovary syndrome- A comparative descriptive study. <i>J. Evolution Med. Dent. Sci.</i> 2017;6(65):4733-4736, DOI:10.14260/Jemds/2017/1025 | Sample size bias |
| 2015 | 5 | Akcalı, A., Bostanci, N., Özçaka, Ö., Öztürk-Ceyhan, B., Gümüş, P., Tervahartiala, T., Husu, H., Buduneli, N., Sorsa, T., & Belibasakis, G. N. (2015). Elevated matrix metalloproteinase-8 in saliva and serum in polycystic ovary syndrome and association with gingival inflammation. <i>Innate</i> | No periodontitis group |

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| | | immunity, 21(6), 619–625. https://doi.org/10.1177/1753425915572172 | |
| 2014 | 6 | Asnani, K. P., Hingorani, D., Kheur, S., Deshmukh, V., & Romanos, G. E. (2014). Expression of nuclear receptors of gingiva in polycystic ovarian syndrome: a preliminary case study. <i>Australian dental journal</i> , 59(2), 252–257. https://doi.org/10.1111/adj.12176 | Case report |
| 2012 | 7 | Özçaka, Ö., Ceyhan, B. Ö., Akcali, A., Biçakci, N., Lappin, D. F., & Buduneli, N. (2012). Is there an interaction between polycystic ovary syndrome and gingival inflammation?. <i>Journal of periodontology</i> , 83(12), 1529–1537. https://doi.org/10.1902/jop.2012.110588 | Repeated sample |

Table 2. Case-control studies bias assessment using the Newcastle-Ottawa Scale (NOS)

| Study. | SELECTION | | | | COMPARABILITY | EXPOSURE | | | RoB Score |
|-------------------------|----------------------------------|----------------------------------|------------------------|-------------------------|--|----------------------------|--|--------------------|-----------|
| | Is the case definition adequate? | Representativeness of the cases? | Selection of controls? | Definition of controls? | Comparability of cases and controls of design or analysis? | Ascertainment of exposure? | Same method of ascertainment for cases | Non-response rate? | |
| Dursun et al. 2011 | a | b | c | a | a/b | a | a | a | 7 |
| Ozçaka et al. 2013 | a | a | a | b | a/b | a | a | a | 8 |
| Porwal et al. 2014 | a | a | a | a | a/b | a | a | a | 9 |
| Akcali et al. 2014 | a | b | a | a | a/b | a | a | a | 8 |
| Rahiminejad et al. 2015 | a | a | a | b | a/b | a | a | a | 8 |
| Hameed et al. 2017 | a | b | a | a | a/b | a | a | a | 8 |
| Najah et al. 2017 | a | b | a | a | a/b | a | a | a | 8 |
| Saglam et al. 2018 | a | b | a | a | a/b | a | a | a | 8 |
| Tong et al. 2019 | b | a | a | b | a/b | a | a | a | 7 |
| Varadan et al. 2019 | a | a | a | a | a/b | a | a | a | 9 |
| Isik et al. 2020 | a | a | a | a | a/b | a | a | a | 9 |
| Saljoughi et al. 2020 | a | a | a | a | a/b | a | a | a | 9 |