Evaluation of the Salivary Flow Rate and pH in Patients with Recurrent Oral Ulcers

By: Al-Ahmad, M (Al-Ahmad, Mustafa)[1], Ezzat, B (Ezzat, Basma)[1], Sukmasari, S (Sukmasari, S)[1]; Jabbar, OA (Jabbar, Abdul, O)[1]

INTERNATIONAL MEDICAL JOURNAL MALAYSIA
Volume: 17 Issue: 2 Pages: 49-56
Published: AUG 2018
Document Type: Article

Abstract
Introductions: Recurrent oral ulcers primarily effect mucosal surfaces and are among the most common chronic inflammatory diseases. Numerous studies to find the aetiopathogenesis have been conducted however the cause still remains unclear. Saliva is of utmost importance for oral health maintenance. In current study, saliva was used as a diagnostic tool for comparison of salivary flow rate and pH in patients suffering from recurrent oral ulcers and control group. Materials and Methods: Saliva samples taken from 20 recurrent aphthous ulcer patients and 20 control (healthy) patients using a convenient sampling method. Drooling method was used to collect unstimulated whole saliva sample. Pre-weighted specimen bottles were used and then weighed after sample collection on a graduated scale where a chair-side pH meter was used to determine the salivary pH. Independent t test and Pearson’s correlation were performed. A p value of less than 0.05 was considered statistically significant. Results: Positive correlation was found between the flow rate and pH in recurrent oral ulcer patients. Patients with recurrent oral ulcers had higher flow rate and pH compared to the control group. These effects were exaggerated in female patients with ulcers. Conclusions: Disturbances in salivary flow rate and pH were not significantly associated with recurrent oral ulcers.

Keywords: salivary flow rate; salivary pH; recurrent oral ulcers

Author Information
Reprint Address: Ezzat, B (reprint author)
Kulliyyah Dent, IIUM Kuantan Campus, Jalan Sultan Ahmad Shah, Kuantan, Pahang, Malaysia.

Addresses:
[1 ] Internas Islamic Univ Malaysia, Kulliyyah Medicine, Jalan Sultan Ahmad Shah, Kuantan, Pahang, Malaysia

E-mail Addresses: alahmadbasma97@gmail.com

Publisher
INT ISLAMIC UNIV MALAYSIA, KULLIYYAH MEDICINE, JALAN SULTAN AHMAD SHAH, KUANTAN PAHANG, 25200, MALAYSIA

Categories / Classification
Research Areas: General & Internal Medicine
Web of Science Categories: Medicine, General & Internal

See more data fields

Cited References: 25
Showing 25 of 25 View All in Cited References page

This record is from: Web of Science Core Collection
- Emerging Sources Citation Index

Suggest a correction
If you would like to improve the quality of the data in this record, please suggest a correction.
1. Determination of Salivary pH in patients with Recurrent Aphthous Ulceration (RAU)
   By: Abbass, A.-T.
   Al-Irajd J Dent J Volume: 10 Pages: 1-4 Published: 2010

   By: Baliga, Sharmilla, Mugilkar, Sangeeta; Kale, Rahul
   Journal of Indian Society of Periodontology Volume: 17 Issue: 4 Pages: 461-5 Published: 2013-Jul

3. The buffer capacity and buffer systems of human whole saliva measured without loss of CO2
   By: Bardow, A; Moe, D; Nyvad, B; et al.
   ARCHIVES OF ORAL BIOLOGY Volume: 45 Issue: 1 Pages: 1-12 Published: JAN 2000

4. The Effects of temperature on pH measurement
   By: Barron, J; Ashton, C; Geary, L.
   TSP Volume: 1 Pages: 1-7 Published: 2005

5. Dental Management Of Patients Suffering From Drooling: Review And Update
   By: Binnal, A; Ahmed, J; Shenoy, N; et al.
   [Show additional data]

6. Salivary flow patterns and the health of hard and soft oral tissues
   By: Dawes, Colin

7. Saliva composition and functions: a comprehensive review.
   By: de Almeida, Patricia Del Vigna; Gregio, Ana Maria Trindade; Machado, Maria Angela Naval; et al.
   The journal of contemporary dental practice Volume: 9 Issue: 3 Pages: 72-80 Published: 2008 Mar 01

8. The Evaluation of Saliva Flow Rate, pH, Buffer Capacity, Microbiological Content and Indice of Decayed, Missing and Filled Teeth in Behcet's Patients
   By: Erdem, Vildan; Yildiz, Mehmet; Erdem, Teoman
   BALKAN MEDICAL JOURNAL Volume: 30 Issue: 2 Pages: 213-214 Published: JUN 2013

9. Salivary flow rate and pH in patients with oral pathologies
   By: Foglio-Benda, P. L.; Brillii, K.; Pattarino, F.; et al.
   EUROPEAN REVIEW FOR MEDICAL AND PHARMACOLOGICAL SCIENCES Volume: 21 Issue: 2 Pages: 369-374 Published: JAN 2017

10. Daily and annually variation of unstimulated whole saliva flow rate and pH and their relation with body profile in healthy young adults
    By: Foglio-Benda, P. L.; Migliarino, M.; Rocchettili, V.; et al.
    EUROPEAN REVIEW FOR MEDICAL AND PHARMACOLOGICAL SCIENCES Volume: 17 Issue: 18 Pages: 2538-2545 Published: SEP 2013

11. Do gorillas regurgitate potentially-injurious stomach acid during 'regurgitation and reingestion'?
    By: Hill, S. P.
    ANIMAL WELFARE Volume: 18 Issue: 2 Pages: 123-127 Published: MAY 2009

12. Long-term effect of tobacco on resting whole mouth salivary flow rate and pH: an institutional based comparative study
    By: Kanwar, A; Sah, K; Graver, N; et al.
    Eur J Gen Dent Volume: 2 Pages: 236-239 Published: 2013
    [Show additional data]

13. The diagnostic applications of saliva - A review
    By: Kaufman, E; Lamster, IB
    CRITICAL REVIEWS IN ORAL BIOLOGY & MEDICINE Volume: 13 Issue: 2 Pages: 197-212 Published: 2002

14. Mucosal and salivary microbiota associated with recurrent aphthous stomatitis
    By: Kim, Yun-Ji; Choi, Yun Sik; Baek, Keum Jin; et al.
    BMC MICROBIOLOGY Volume: 16 Article Number: 57 Published: APR 2016