



RESEARCH ARTICLE

ASSESSMENT THE RELATIONSHIP BETWEEN ANEMIA AND ORAL HYGIENE

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ABSTRACT

Paddy this study aimed To investigate the possible relationship between anemia and oral hygiene and to evaluate the periodontal status of patients with anemia. A total of approximately (50) patients consisted ofmales and Females who have Anemia as systemic disease of any age group in saudi Arabian kingdom participated in the study, Our study showed strong relationship between anemia as systemic disease and periodontal problems, while there wasn't relationship between anemia and oral hygiene.

Key words:

Anemia- Oral Hygiene.

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INTRODUCTION

(Lainson, Brady et al., 1968), suggested that anemia was one of the causes of destructive periodontitis, not only as a consequence Anemia is a condition in which red blood cell count is lower than normal. Anemia also occurs when red blood cells don't contain enough of the iron-rich protein hemoglobin, which gives blood its red hue. Hemoglobin helps red blood cells transport oxygen throughout your body Anemia can cause many manifestation on oral cavity like: sore mouth, chronic periodontitis,

- **Sore mouth** is a group of oral lesions including atrophic glossitis, picky sensation of tongue, pale mucosa, recurrent aphtus ulcer, angular, erythematousmucositis and glossodynia. Blood deficiency and malnutrition are the two major proposed etiological factors for sore mouth.
- **Chronic periodontitis:** Treatment of chronic periodontitis has shown to improve hematological values. Anemia cause immune suppression so the patient more suitable to get infections.

Some researchers have provided evidence for improved periodontal health after correction of some anemia types. However, other studies have reported improved anemia with the control of periodontal disturbances.

Several mechanisms have been suggested to explain these observations, but there is currently limited high level clinical evidence that applies to all patients with anemia and periodontitis.

The Aim

- Toinvestigate the possible relationship between anemia and oral hygiene.
- To evaluate the periodontal status of patients with anemia.

MATERIALS AND METHODS

A total of approximately (50) patients consisted ofmales and Females who have Anemia as systemicdisease of any age group in Saudi Arabian kingdom participated in the study. A clinical examination will be used to evaluate the oral hygiene then we filled the attached file which has:

Patient name:
Nationality:
Age:
Education level :
Gender :
systemic disease: - yes -no
Bad habit: -yes -no
Smokers : - yes -no
Clinical signs:
-Periodontal disease -yes -no

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-Oral hygiene -good -bad
Patient criteria 1-Saudi patients 2-Age: 20-65

Educated patient

Non smokers 5-No bad habits

After collected all files we subjected them to statistical analysis to get results.

RESULTS

The majority of the anemic patients (89%, n=89) had periodontal problem.

Periodontal Problem

Cumulative Percent	Valid Percent	Percent	Frequency		
89	89	89	89	Yes	Valid
100	11	11	11	No	
	100	100	100	Total	

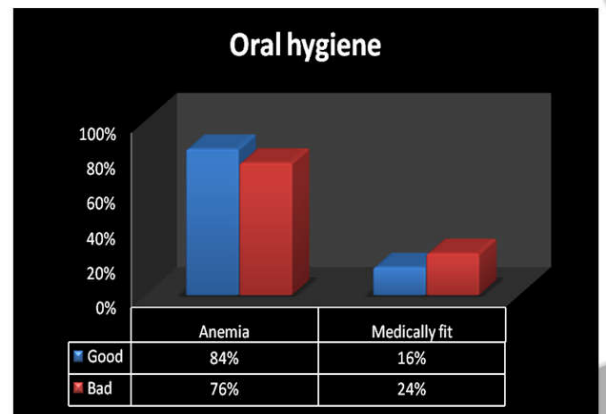
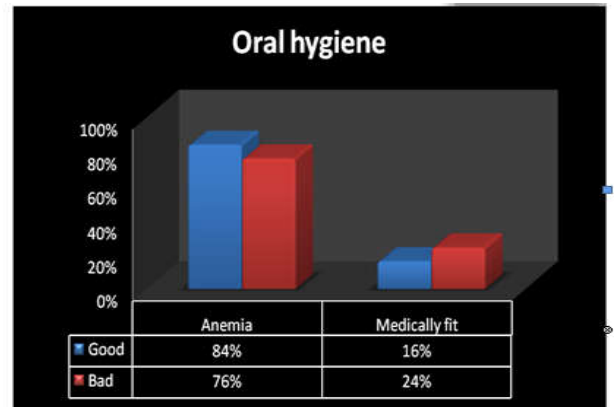
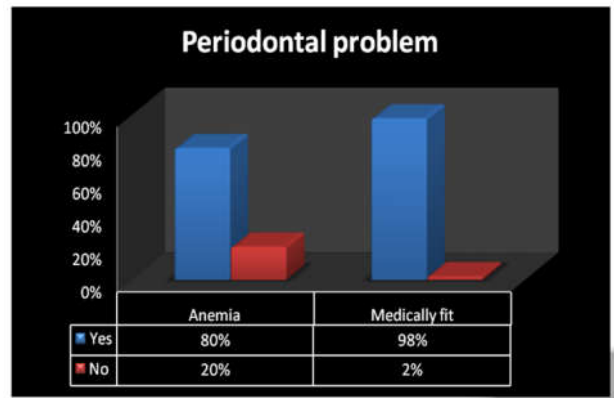
Oral Hygiene

Cumulative Percent	Valid Percent	Percent	Frequency		
80	80	80	80	Good	Valid
100	20	20	20	Bad	
	100	100	100	Total	

The majority of the patients (80%, n=80) had good oral hygiene.

Fisher’s exact test showed a statistically significant correlation between the patient group and periodontal problem (p=0.008). Two- way cross-tabulation showed anemic patients are less likely to have periodontal problem than medically fit patients.

Fisher’s exact test showed no statistically significant association between the patient group and oral hygiene (p=0.454). Two-way cross- tabulation showed anemic patients are more likely to have good oral hygiene than medically fit patients.



Chi-Square Tests

Exact Sig. (1- sided)	Exact Sig. (2-sided)	Asymp. Sig. (2- sided)	df	Value	
0.004	0.008	0.004	1	8.274a	Pearson Chi-Square
		0.011	1	6.537	Continuity Correction ^b
		0.002	1	9.459	Likelihood Ratio
		0.004	1	8.191	Fisher's Exact Test
				100	Linear-by- Linear Association
					N of Valid Cases

- 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.50.
- Computed only for a 2x2 table

Exact Sig. (1-sided)	Exact Sig. (2-sided)	Asymp. Sig. (2-sided)	df	Value	
.227	.454	.317	1	1.000 ^a	Pearson Chi-Square
		.453	1	.563	Continuity Correction ^b
		.316	1	1.006	Likelihood Ratio
					Fisher's Exact Test
				.320	1
				100	N of Valid Cases

- 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.00.
- Computed only for a 2x2 table

DISCUSSION

Our results showed a strong relationship between Anemia as systemic disease and some oral diseases. It was clear that most of anemic patients have high percentages of periodontal problems like gingivitis or periodontitis and this might attributed to the weakness of the soft tissues with those patients. And in this side we are in consistence with (Lainson et al) who revealed the same results.

DISCUSSION

The relationship between anemia and oral hygiene was neglected in our study, since the results showed that the majority of anemic patients have Good oral hygiene, so this is no relationship between anemia and oral hygiene, this might be attributed to the type of educated cooperative patients who participated in our study.

Conclusion

Our study showed strong relationship between anemia as systemic disease and periodontal problems, while there wasn't relationship between anemia and oral hygiene. So we need more research about the causes lead to such periodontal diseases with anemic patients.

REFERENCES

Chawla, T.N., Kapoor, K.K., Teotia, S.P.S. and Singh, N. 1971. Anemia and periodontal disease – A correlative study. *J Indian Dent Assoc.*, 43:67-78

- Lainson, P.A., Brady, P.P., Fraleigh, C.M. 1968. Anemia, a systemic cause of periodontal disease? *J Periodontol.*, 39:35-38.
- Lu, S. Yu and Eng, H.L. 2010. Dramatic recovery from severe anemia by resolution of severe periodontitis. *J Dent Sci.*, 5:41-46.
- National Institutes of Health. Accessed 2013.
- Neville, B.W., Damn, D.D., Allen, C.M., Bouquot, J.E. 2009. Oral and maxillo facial pathology. 3rd ed. Philadelphia: WB Saunders Company, pp: 341 - 5. 3. L
- Platt, O.S., Brambilla, D.J., Rosse, W.P. et al. 1994. Mortality in sickle cell disease. Life expectancy and risk factors for early death. *N Engl J Med.*, 330(23):1639-44. [PubMed: 7993409]
- Pradeep, A.R., Sharma, A., Arjun Raju, P. 2011. Anemia of Chronic Disease and Chronic Periodontitis: Does Periodontal Therapy Have Effect on Anemic Status. *J Periodontol.*, 82:388-394. [pubmed]
- Salvi, G.E., Lawrence, H.P., Offenbacher, S., Beck, J.D. 2000. Influence of risk factors on the pathogenesis of periodontitis. *Periodontol.*, 14:173-201. [pubmed]
- Shetty, M.K., Thomas, B., Shetty, A.V. 2014. Comparative evaluation of hemoglobin level in anemic patients with chronic periodontitis before and after treatment. *J Interdiscip Dentistry*, 4:24-6
- Wood, N.K. and Goaz, P.W. 2000. Differential diagnosis of oral and maxillofacial lesions. 7th ed. St Louis Missouri, Mosby Inc; pp : 583 – 9
