

# Analyses of hemoglobin count in patients with bleeding gums

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## ABSTRACT

**Aim:** This study aims to analyze the hemoglobin count in patients with bleeding gums. **Materials and Methods:** This study was carried out in 100 subjects with bleeding gums visiting Saveetha Dental College and Hospital seeking for dental treatment. Hemoglobin count was estimated for those 100 subjects and the data are tabulated for statistical analyses. A written consent was obtained from each subject for the study. Patients with the chief complaint of bleeding gums and age >20 years are included in the study. Patients with any kind of blood-related disorders and dengue are excluded from the study. **Results:** This study reveals a deviation of lower hemoglobin count till 1.2 mg/dl in females and in males, a deviation of 2.3 mg/dl is seen. **Conclusion:** Patients must also be educated about the ill effects of poor oral hygiene and proper oral hygiene instructions must be given to them. Periodical review of such patients is essential to prevent further periodontal complications.

**KEY WORDS:** Anemia, Bleeding gums, Hemoglobin count, Red blood cells

## INTRODUCTION

Hemoglobin is a protein molecule present in the red blood cells which helps in the transport of oxygen from the lungs to the tissues and returns carbon dioxide from the tissues to the lungs. It consists of four protein molecules, namely the globulin chains which are connected together. The decrease in hemoglobin lower than the normal causes anemia. Normal hemoglobin count varies for male and female and for different ages. This study analyses the hemoglobin count in patients with bleeding gums. In individuals with poor dental hygiene, bacteria in the mouth form plaque on the teeth. These bacteria may cause the gums to become inflamed, which results in red, swollen, or bleeding gums. The infection and the inflammation that result when the body attacks the bacteria can degrade the gums. A low hemoglobin count is associated with a disease condition that includes production of fewer red blood cells than usual; destruction of red blood cells faster than its production; blood loss because

of bleeding from wound, digestive tract such as from ulcers, cancers, or hemorrhoids; urinary tract; and heavy menstrual bleeding. This study is to analyze the prevalence of anemia in patients with bleeding gums.<sup>[1]</sup>

## MATERIALS AND METHODS

This study was carried out in 100 subjects with bleeding gums visiting Saveetha Dental College and Hospital seeking for dental treatment. Hemoglobin count was estimated for those 100 subjects with bleeding gums and the data are tabulated for statistical analyses. A written consent was obtained from each subject for the study.

### Inclusion Criteria

The following criteria were included in the study:

- Patients with the chief complaint of bleeding gums;
- Patients of age >20.

### Exclusion Criteria

The following criteria were excluded from the study:

- Patients with any of the blood-related disorders;
- Patients with dengue.

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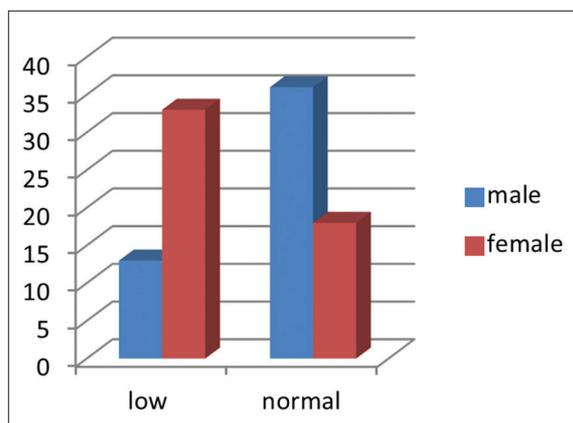
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**Figure 1:** Hemoglobin count in males and females

## RESULTS

Among the 100 subjects selected, 51 are female and 49 are male. Of the 51 females, 18 females have normal hemoglobin count and 33 females have lower hemoglobin count than normal. Among the 49 males, 36 males have normal hemoglobin count and 13 males have low hemoglobin count than normal [Figure 1]. In females having low hemoglobin count, the deviation is shown till 1.2 mg/dl, and in males, a deviation of 2.3 mg/dl is seen.

## DISCUSSION

This study as carried out in 100 subjects reporting to Saveetha Dental College and Hospitals with bleeding gums. Among the 100 subjects selected, 51 are female and 49 are male. Of the 51 females, 18 females have normal hemoglobin count and 33 females have lower hemoglobin count than normal. Among the 49 males, 36 males have normal hemoglobin count and 13 males have low hemoglobin count than normal. In females having low hemoglobin count, the deviation is shown till 1.2 mg/dl, and in males, a deviation of 2.3 mg/dl is seen.

Some studies reveal that low hemoglobin count is associated with blood loss. The blood loss may be due to menstrual bleeding, bleeding from a wound, digestive, or urinary tract or may be due to frequent

blood donations. Bleeding gums are a common dental problem prevalent in the population. This study analyses the prevalence of anemia in patients with bleeding gums.

In a case presented by Ghosh,<sup>[1]</sup> a patient with Glanzmann's thrombasthenia with spontaneous gum bleed had chronic low hemoglobin levels.

In a review by Adeyemo, it is said that multiple orofacial hemorrhages are common in patients with aplastic anemia.<sup>[2]</sup>

This present study reveals the alterations in hemoglobin count in patients with bleeding gums. It emphasizes the need of surgical or non-surgical periodontal therapy to cure bleeding gums.

## CONCLUSION

This correlation between low hemoglobin count and bleeding gums could be a cause and effect relation. Thus, identification and rectification of the cause that is chronic inflammatory process in bleeding gums may resolve the anemic status of the patient. Lower hemoglobin count in patients with bleeding gums must be taken into consideration before performing any surgical procedures to avoid medical emergencies. Patients must also be educated about the ill effects of poor oral hygiene and proper oral hygiene instructions must be given to them. Periodical review of such patients is essential to prevent further periodontal complications. Referral to general physician is also necessary in case of severe drop in hemoglobin count to provide timely treatment and to avoid further complications.

## REFERENCES

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