

Oral health status and treatment needs in Haemophilic children in Srinagar, India¹Dr Ifzah, Ex Registrar, Govt Dental College, Srinagar, Jammu and Kashmir.²Dr Nazia Lone, Professor and Head, Govt Dental College, Srinagar, Jammu and Kashmir.**Corresponding Author:** Dr Ifzah, Ex Registrar, Govt Dental College, Srinagar, Jammu and Kashmir.**Citation of this Article:** Dr Ifzah, Dr Nazia Lone, “Oral health status and treatment needs in Haemophilic children in Srinagar, India”, IJDSIR- January - 2022, Vol. – 5, Issue - 1, P. No. 449 – 452**Copyright:** © 2022, Dr Ifzah, et al. This is an open access journal and article distributed under the terms of the creative commons attribution noncommercial License. Which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.**Type of Publication:** Original Research Article**Conflicts of Interest:** Nil

Abstract: Haemophilia is a set of inherited bleeding disorders characterized by a clotting mechanism abnormality that lasts a lifetime. Haemophilia is divided into three types: A, B, and C. Despite advances in the treatment of bleeding disorders, hemophilic children's dental health receives little attention. The purpose of this study is to compare children with hemophilia to matched controls from the general population in terms of dental health.

Methodology: Thirty Haemophilia patients aged 5 to 12 years who underwent treatment at the Department of Pedodontics and Preventive Dentistry, as well as thirty healthy children who came in for a routine dental examination, were selected. A single certified examiner documented the Plaque Index (PI), Modified Gingival Index (MGI), permanent decayed, missing, and filled teeth (DMFT) and primary DMFT index, as well as malocclusion and other hard and soft tissue abnormalities, in standardized settings.

Results: The study group had higher mean deft and DMFT scores than the control group, with a statistically significant difference between them. There was no

statistically significant difference between the test and control groups when malocclusion parameters were analyzed.

Conclusion: Most dentists have minimal experience dealing with dental problems in hemophilic children, making dental treatment challenging for them. It is critical to have a thorough awareness of the oral health of hemophilic youngsters in order to limit their dental treatment needs.

Keywords: Hemophilic, PI, DMFT, MGI.

Introduction

Haemophilia is a set of inherited bleeding disorders characterized by a clotting mechanism abnormality that lasts a lifetime. Haemophilia is divided into three types: A, B, and C. The disorder is inherited, with the abnormality being carried on the X chromosome. The most common is hemophilia A (classical hemophilia), which accounts for about 80% of bleeding issues.¹ The total health of these children is more important than their dental health. Fear of bleeding during operations, a lack of education and income, and the difficulty in getting factor concentrates are all factors that lead hemophiliacs

to ignore dental care. Despite advances in the treatment of bleeding disorders, hemophilic children's dental health receives little attention. These children may be more susceptible to dental caries and periodontal diseases as a result of their aversion to undertaking oral hygiene practices.² The purpose of this study is to compare children with hemophilia to matched controls from the general population in terms of dental health.

Methodology

Thirty Haemophilia patients aged 5 to 12 years who underwent treatment at the Department of Pedodontics and Preventive Dentistry, as well as thirty healthy children who came in for a routine dental examination, were selected. A single certified examiner documented the Plaque Index (PI), Modified Gingival Index (MGI), permanent decayed, missing, and filled teeth (DMFT) and primary DMFT index, as well as malocclusion and other hard and soft tissue abnormalities, in standardized settings.³ Using a blunt explorer and a flat dental mirror, the DMFT and dmft indices were assessed using a tactile and visual approach. Gingival inflammation was measured with MGI (as described by Loe and Silness).⁴ O'Leary PI was used to determine PI with the use of fuchsin plaque disclosing agent.⁵ Microdontia, macrodontia, extra teeth, fusion, and other anomalies were also investigated, as well as enamel hypoplasia and fluorosis. The two groups were compared in terms of the prevalence of dental damage, including hard and soft tissue, as well as other soft tissue abnormalities on the tongue, buccal mucosa, mouth floor, lips, and gingiva. All parents were given a questionnaire that inquired about their children's oral and dietary habits, as well as their educational level, frequency of tooth brushing, oral hygiene habits, and history of routine dental visits, dental therapeutic needs. The youngsters received comprehensive dental care with an emphasis on

preventive measures, as well as instructions to contact a dentist for a check-up every three months. Kruskal-Wallis and Chi-Square tests were used to statistically examine the data. The Mann-Whitney U test, which was used to compare different indicators in the study and control groups, was used to determine the degree of significance.

Results

The study group had higher mean deft and DMFT scores than the control group, with a statistically significant difference between them. There was no statistically significant difference between the test and control groups when malocclusion parameters were analyzed (Table 1). There was a statistically significant difference in the prevalence of teeth brushing between the study and control groups. The number of youngsters in the study group who had never brushed their teeth was much higher than in the control group (Table 2). Parents in the research group brushed their children's teeth twice a day, compared to only 8% in the control group (Table 2). The control group had a statistically larger number of children who had previously visited a dentist and got dental care than the research group.

When dental abnormalities including supernumerary teeth, enamel hypoplasia, fluorosis, and trauma were analysed again, there was no statistically significant difference between the groups. However, the difference in MGI was significant in terms of hematologic factors. Between the study and control groups, there was no difference in PI. The most commonly sought services in the hemophilia group were caries-stopping care (85%) and prevention (79.2%), while the most frequently requested services in the control group were prevention (92.5 %) and caries-stopping care (83%). The study group's parental education levels were statistically lower than the control group, with a P value of 0.05. Parents of

16 children knew about oral hygiene and were aware of it, but parents of 14 children did not. However, in control group it was found in the parents of 12 children but not in the parents of 18 children.

Table 1:

Group	Study group	Control group	p value
dmft	3.0±2.71	2.51±2.1	0.011*
DMFT	3.79±2.71	2.75±4.1	< 0.001
PI	76.64±4.11	61.20±1.91	0.071
MGI	1.86±.09	1.75±1.1	0.3

Table 2:

Questions	Study group	Control group
Does the child brush his/her teeth?	12	18
How often does the parent brush his/her teeth?		
Once daily	16	19
Twice daily	14	11
Parental educational level		
Primary school		
High school	18	10
University graduate	12	20
How often do children brush their teeth?		
Once	8	16
Twice	8	14
Never	14	0
Prior dental visit	12	22
Prior dental treatment	10	19

Discussion

Most dentists have minimal experience dealing with dental problems in hemophilic children, making dental treatment challenging for them. The most common

locations of oral bleeding were the labial frenulum and the tongue. Individuals may have spontaneous bleeding during tooth brushing, food abrasion, or periodontal disease due to the increased number of enlarged capillaries close to the surface of the weaker regions of the gingiva.^{6,7}

Working collaboratively, parents/guardians, children, and dental experts can help those without access to dental care improve their oral health. So that active treatment is not required, parents must be educated about the importance of oral and preventative care, which should be reinforced at every dentist appointment.

Dental caries is the most common type of dental disease. Children with haemophilia had a higher caries index as a result of neglected or insufficient teeth cleaning. When it comes to caries, children with haemophilia must be considered a high-risk group. Individuals with haemophilia may have a higher gingival index (GI) due to coagulation issues; as a result, these patients choose soft foods and beverages to reduce the risk of oral cavity ulcers. Children with haemophilia are at an increased risk of acquiring gum disease. This is a result of neglected or insufficient teeth brushing due to a fear of bleeding when brushing, as well as the factors that contribute to increased dental caries, which may include confounding factors such as lifestyle differences, oral hygiene practices, and biological determinants (i.e. a difference in underlying susceptibility). The oral manifestations in patients with hemophilia appear in different forms. Hemorrhage from different parts of the oral cavity and from the gingiva might be profuse and continue for a long time. Even the physiologic processes of tooth eruption and exfoliation might be associated with long-term hemorrhage.⁹

Conclusion

Patients with hereditary bleeding disorders must prioritize their dental health. Hemophiliacs may require numerous visits to complete this work however success in haemophilia patient dental management is the product of collaboration between haematologists and dentists. It is critical to have a thorough awareness of the oral health of haemophilic youngsters in order to limit their dental treatment needs.

References

1. Saxena S, Shashi Karan ND. Prevalence of dental caries and treatment needs among hemophilic children of Kota city, Rajasthan. *Ann Esse Dent* 2010;2(12):18-21.
2. Pereira CM, Pires FR, Corrêa ME, di Hipólito Júnior O, Almeida OP. Candida in saliva of Brazilian hemophilic patients. *J Appl Oral Sci*. 2004;12(4):301-6.
3. Alpkiliç Baskirt E, Ak G, Zulfikar B. Oral and general health- related quality of life among young patients with haemophilia. *Haemophilia* 2009; 15:193-8.
4. Makarem M, Talebi M, Mazhari F, Kiyanoosh N. Evaluation of Oral and Dental Health Status of Khorasan Province Hemophilic Patients in 2004. *J Mashhad Dent School* 2008; 32:161-8.
5. Newman MG, Takei H, Klokkevold PR, Carranza FA. Carranza's Clinical Periodontology: Expert Consult. 12 th ed. St. Louis, MO. Elsevier Inc, 2014.
6. Harrington B. Primary dental care of patients with haemophilia. *Haemophilia*. 2000; 6 Suppl 1:7-12.
7. N. B. Nagaveni, S. Arekal, P. Poornima, S. Hanagawady, and S. Yadav, "Dental health in children with congenital bleeding disorders in and around Davangere: A case-control study," *Journal of Indian Society of Pedodontics and Preventive Dentistry*, vol.34, no. 1, pp. 76–81, 2016.
8. A. Dhawan, S. Sandhu, T. Kaur, and S. Kapila, "Hemophilia A—an inci dental findingina patient with facia Itrauma," *Indian Journal of Comprehensive Dental Care*, vol. 1, no. 1, pp. 43–46, 2011.
9. Weickert L, Miesbach W, Alesci SR, Eickholz P, Nickles K. Is gingival bleeding a symptom of patients with type 1 von Willebrand disease? A case-control study. *J Clin Periodontol*. 2014; 41:766–71.