Management of Dental Fluorosis-A Case Report

Shweta Lall¹* and Ritesh Runu²

¹Conservative Dentistry & Endodontics, Dr. B. R. Ambedkar Dental College and Medical Sciences, Patna, India.
²Indira Gandhi Institute of Medical Sciences, Patna, India.

*Corresponding author: shweta_lall2000@yahoo.com, 91-9572112942, 0612-2270355

ABSTRACT
Dental fluorosis is a developmental disturbance of dental enamel. Chronic ingestion of excessive fluoride during enamel development lower mineral content and increased porosity. Fluorosis can be categorized as mild, moderate and severe. Mild fluorosis presents with white streaks. Moderate fluorosis demonstrates white streaking with brownish staining and severe form of fluorosis is characterized by very dark brown staining sometimes with enamel surface defects. Discolored and pitted enamel of fluorosed teeth may be unaesthetic and may be the cause of psychological problems. Mild and moderate grade of fluorosis can be managed conservatively and effectively by enamel microabrasion, macroabrasion and bleaching though severe form of fluorosis requires veneering and crowns.

Keywords: Fluorosis, unaesthetic, bleaching, micro abrasion, macro abrasion, veneer.

INTRODUCTION
Fluoride can have both beneficial and detrimental effects on the dentition. The beneficial effect is due to anticariogenic effect of fluoride after teeth eruption and the detrimental effects are due to chronic ingestion of excessive fluoride during tooth development leading to dental fluorosis.³,⁶ Dental fluorosis is a developmental disturbance of dental enamel which leads to enamel with lower mineral content and increased porosity. The most critical period for fluoride exposure is between 1-4 years of age. Fluorosis can be categorized as mild, moderate and severe. Mild fluorosis presents with white streaks. Moderate fluorosis demonstrates white streaking with brownish staining and severe form of fluorosis is characterized by very dark brown staining sometimes with enamel surface defects.⁵

CASE REPORT
A 22 year old female patient reported to our dental clinic with chief complaint of compromised aesthetics due to dark brownish stains. She gave history of discoloration since childhood. There was no other relevant medical history. On clinical examination moderate grade
Management of Dental Fluorosis - A Case Report

Shweta Lall and Ritesh Runu

Several indices have been used to describe the clinical appearance of dental fluorosis – Dean’s index which is now of historical importance. Thylstrup and Fejerskov index (TFI) is one of the most suitable index for use in clinical management of fluorosis. 

0 - Normal creamy surface after drying
1- Faint white lines
2- Distinct white lines with some merged
3- Cloudy opacities with white lines in between
4- Paper white opacities on entire surface.
5- Pitted and opaque surface.
6- Merged pits form rows.
7- Irregular pattern of enamel loss.
8- Half surface enamel lost, remaining opaque.
9- Cervical rim of opaque enamel.

Staining was not a criterion as it’s a post eruptive process due to intake of exogenous stains. TFI Index 1-3 is considered mild, 4-5 moderate and 6-9 severe on TFI index.

The patient in this case report had moderate grade of fluorosis and was a grade 4 on TFI index. Bleaching and microabrasion techniques are conservative and provide very satisfactory results.

CONCLUSION
Discolored and pitted enamel of fluorosed teeth may be aesthetically objectionable and cause of psychological problems. Mild and Moderate grade of fluorosis can be managed conservatively and effectively by enamel microabrasion and bleaching though severe form of fluorosis requires veneering and crowns.

BIBLIOGRAPHY


