

## CASE REPORT

# Amalgam Overhang—Commonest Unseen Procedural Mistake in Class II Amalgam Restoration

<sup>1</sup>Vartul Dwivedi, <sup>2</sup>Sanjeev Tyagi, <sup>3</sup>Shivanshu Choubey, <sup>4</sup>Rashmi Deshmukh

## ABSTRACT

An amalgam overhang is the part of the amalgam restoration that is extended beyond the confines of cavity preparation. Amalgam overhang is one of the most common errors which remain unnoticed at the time of restoration and finally leads to bone loss, secondary caries, pain, etc. This case depicts the problem associated with overhang and how the removal of the overhang leads to healing of the bone.

**Keywords:** Amalgam overhang, Bone loss, Class II restoration.

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## INTRODUCTION

The use of amalgam has been declining in India but amalgam procedures performed in India is still very high. In USA, 48% of direct restoration accounts for amalgam restoration. A similar pattern is found in other countries like; practitioners in United Kingdom reported that amalgam was used in 45% of direct restorations.<sup>1</sup>

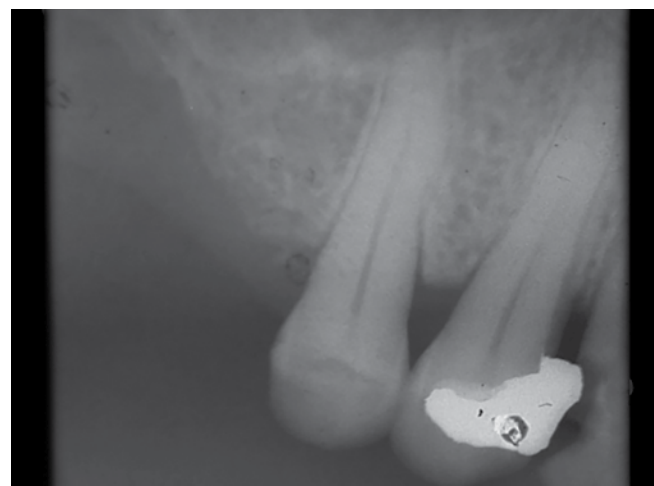
Many studies show 'Amalgam overhang' to be the most common procedural mistake and this error could be as high as 71%.<sup>2-4</sup> In study evaluating overhanging amalgam restorations, 57% of the patients investigated had at least one amalgam overhang.<sup>5</sup>

## CASE REPORT

A 26-year-old female patient reported to the clinic with a chief complaint of pain and food lodgment in left upper back tooth region for 5 days. Pain was dull in nature and aggravated on mastication. Past dental history reveals amalgam restoration with 24, 1 month back (Fig. 1). On complete examination, pocket was also present in between 23 and 24. Radiograph of 24 revealed overhanging amalgam restoration with respect to 24 and interdental bone loss in between 23 and 24. As the restoration was grossly defective so complete removal of amalgam overhang was done followed by placement of a new amalgam restoration with proper matricing and wedging. Polishing was done with interproximal strip. The patient was recalled after 7 days and postoperative radiograph revealed decreased bone loss (Fig. 2) and the patient was asymptomatic.

## DISCUSSION

The most common and iatrogenic mistake in a class II amalgam restoration is amalgam overhang. Skogedal et al conducted a study and showed that proximal amalgam overhangs are associated within an increased risk of secondary caries.<sup>6,7</sup> Overhangs are considered to be an important etiologic factor in the progression of periodontal disease. Clinician should perform a good examination for overhangs, both clinically and radiographically.



**Fig. 1:** Preoperative (bone loss as a result of amalgam overhang between 23 and 24)

<sup>1</sup>Senior Lecturer, <sup>2</sup>Professor and Head, <sup>3</sup>Graduate Student  
<sup>4</sup>Postgraduate Student

<sup>1,2</sup>Department of Conservative Dentistry and Endodontics  
People's Dental Academy, Bhopal, Madhya Pradesh, India

<sup>3</sup>People's Dental Academy, Bhopal, Madhya Pradesh, India

<sup>4</sup>Department of Epidemiology, University of North Texas Health  
Science Center, Texas, United States

**Corresponding Author:** Vartul Dwivedi, Senior Lecturer  
Department of Conservative Dentistry and Endodontics  
F-6/22, Char Imla, Bhopal, Madhya Pradesh, India, e-mail:  
doctorvartul@gmail.com



**Fig. 2:** Postoperative (healing of the interdental bone between 23 and 24)

Many studies have shown increase in amount of bleeding, gingivitis and bone loss in tissues adjacent to overhangs.<sup>8,9</sup>

Generally, overhangs with gross mistakes are corrected by removal of complete restoration followed by replacement with new restoration. However, if amalgam restoration is intact and overhang is minimal and accessible then smoothening out of the overhang or marginal repairs, followed by good polishing serves the restoration in best possible manner.

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