Clinical Tip

Glove over glove technique for manipulation of vinyl polysiloxane impression material with latex gloves

Despite prior recommendations for removal, latex gloves remain prevalent in dental clinical practice because of puncture resistance, durability, and user satisfaction.[1] However, latex gloves can impair polymerization of vinyl polysiloxane impression material (VPS) thus, resulting in inaccurate and distorted impressions, which may require the clinician to repeat the impression procedure leading to material and time wastage.[2] For prevention of polymerization inhibition, use of vinyl/nitrile gloves, non-latex vinyl barrier materials, and cleansing procedures have been recommended.[1,3] However, cleansing attempts found to be unsuccessful.[1] Complete avoidance of contact with latex in any area in which VPS will be used has also been recommended to reduce the risk of indirect latex contamination.[1]

The price of nitrile gloves (petroleum-based synthetic material) have steadily increased due to escalating crude oil prices. Vinyl gloves have been associated with allergic contact dermatitis.[4] As vinyl barrier materials have relative disadvantages to latex material in the areas of puncture resistance, durability, and stretch resistance, and hence their exclusive use is not feasible and impractical.[1] Hence, an alternative and inexpensive glove over glove technique has been proposed to overcome this problem.

In this technique, polyethylene (PE) gloves (gloving done by assistant) are worn over the latex gloves [Figure 1] and tightened at wrist with micro-pore tape just prior to manipulation of polyvinyl siloxane (PVS) impression material. Following manipulation and tray loading, PE gloves can be easily removed (as they are flexible and loose fitting), and remaining procedures carried out conventionally with latex gloves. As PE gloves have decreased dexterity and durability compared to latex gloves and recommended for use in light tasks only, so they have limited use and cannot replace latex gloves. The glove over glove technique effectively overcomes the disadvantages associated with the use of PE or latex gloves alone and is easy, simple and can clinically resolve the problem of latex contamination while using VPS material.

Figure 1: Polyethylene gloves worn over latex gloves during manipulation of vinyl polysiloxane impression material

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