

SKY Ligatures: A simple technique for Ligature making

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ABSTRACT

The buccal archwire used in the PEA technique is anchored to the brackets by means of ligatures made of soft stainless steel wire of about .010 inch diameter. These ligatures are seated under the flanges of the brackets. Various methods have been advocated for seating and tying the ligatures. The preformed ligatures used in this method differ from those conventionally used in that they can easily and quickly be formed on a jig constructed from available orthodontic material.

Key words: Ligature, PEA technique, stainless steel wire

INTRODUCTION

The archwire used in the edgewise or PEA technique is anchored to the brackets by means of ligatures made of soft stainless steel wire of about 0.010 inch diameter. These ligatures are seated under the flanges of the brackets. Various methods have been advocated for seating and tying the ligatures. Renfroe describes a technique of seating and tying entirely by hand.¹ This method enables one to maintain good tension control on the wire, but has the disadvantage of being laborious and wasteful since the long ends of the wire necessary to afford a good grip are subsequently discarded. A modification of the above technique is the use of ligature-locking pliers which enables a tight tie to be made, but is also tedious and wasteful. These disadvantages can be overcome by using the method advocated by Bean to seat and tie the ligature with a hemostat or artery clamp². Such preformed ligatures are unobtainable at the moment, but this should not preclude their use as they can easily and quickly be formed on a jig constructed from available orthodontic material described by OosthuizenLen³. The preformed ligatures used in this method differ from those conventionally used in that the ends are short and twisted together. Ligatures preformed in this manner are more easily centered and clamped in the beaks of the hemostat.

PROCEDURE

The twisting mechanism comprises a piston of a suitable length through which the ligature wire is fed from the spool.
(Fig. 1a to f)

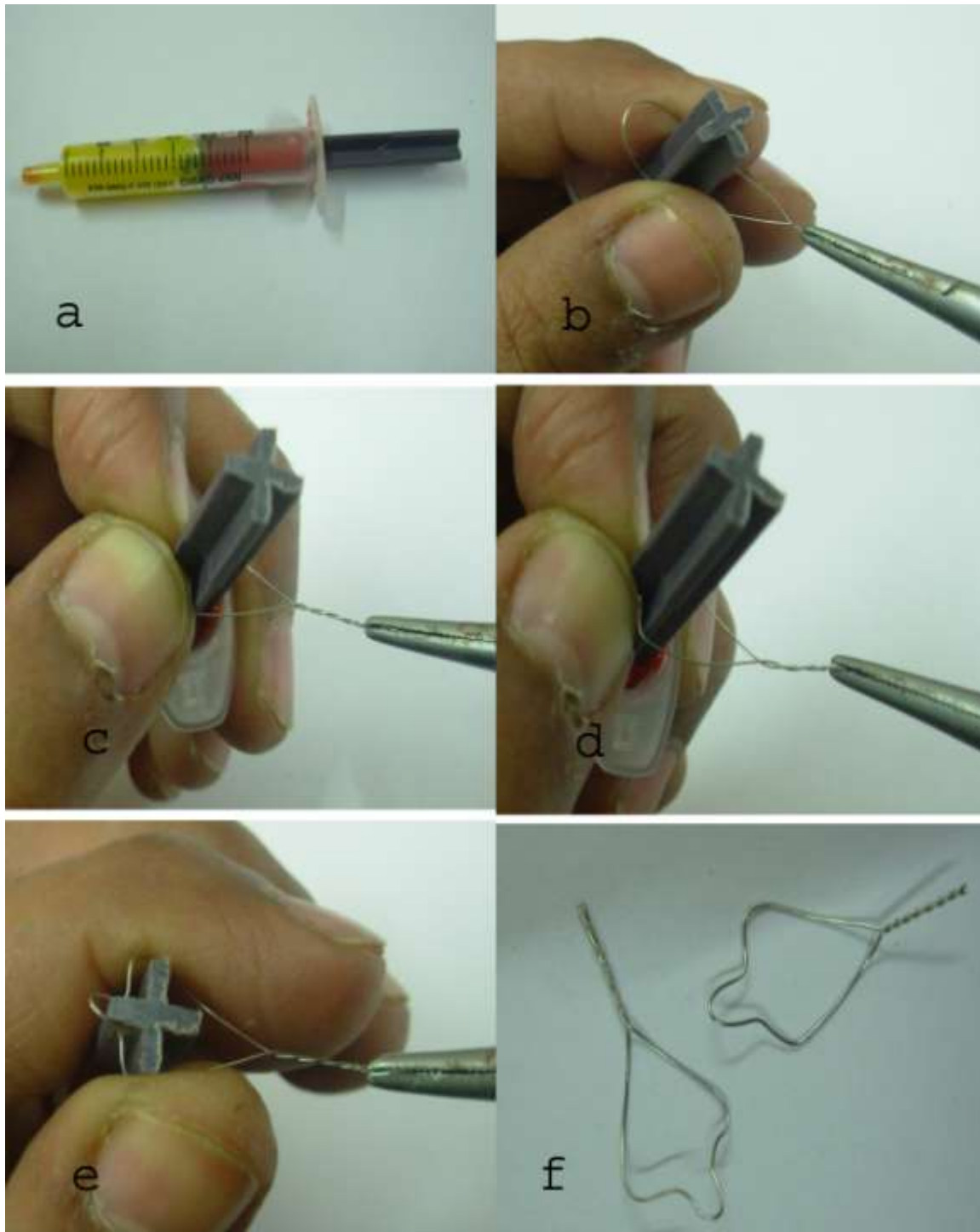


Fig. 1a to f – Steps in the formation of ligature.

The twisting device i.e. piston is fixed to the body at the inlet end to hold it in a convenient position for receiving the wire from the spool. In order to provide for the even twisting of the two ends of the ligature, an half eyelet is disposed on the piston at the free end. To form a ligature, the ligature wire is fed from the wire spool, through the eyelet, round the former, and back to be held in the artery forceps. The artery forceps arm are then rotated about the piston until a pigtail of desired length is formed. The completed or formed ligature is removed from the former and ready for the use.



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