# 합성수지 인공치와 열중합의치상 Resin의 결합시 인공치에 형성하는 유지공의 효과에 관한 연구

지산간호전문대학 치과기공사

Abstract

## The effect of retention grooves in Acrylic resin tooth denturebase bond.

Kim, Bu Sob

Dapartment of Dental Laboratory Technology, Jisan Junior College

One of the primary advantages of acrylic resin teeth is their ability to bond chemically to the denture base resins.

Fracture od acrylic resin teeth from a maxillary denture, however, is not uncommon.

Bonding failures have been attributed to faulty boil-out procedures that fail to eliminate all traces of wax from the ridge lap surfaces of the teeth and to contamination of the ridge lap surface by careless application of tinfoil substitute.

Attempts to increase the strength of the bond between acrylic resin teeth and heat-cured denture base resin include grinding the glossy ridge lap surface (in fluid system), painting the ridgelap surface of the teeth with monomer-polymer solution, and cutting retention grooves in the ridge lap surface of the teeth.

This latter method has been tested by applying a tensile force in a labial direction to the incisal part of the lingual surface of the acrylic resin teeth.

A progressive shear compressive load was applied at an angle to the lingual surface of acrylic resin teeth bonded to denture base acrylic resin.

No statistically singificant advantage was derived by preparing retention grooves of different shapes in the ridgelap surface of the denture teeth.

목 차 2. · · ·

7	ŀ	resin 가	가
. Acrylic resi	n Porcelain	Ⅱ. 실험방법 및 재료	
Pin, . Acrylic resin	Porcelain pin,	1.시험편제작 60 Acrylic resin ( ) resin . 4	(
Acrylic resin Porcelain resin	가	1) :	
resin		2) : 가 2 round bur 2.5mm	2mm
resin . 가 denture	wax	<ul><li>3) : fissure bur</li><li>2.5mm, 5mm</li><li>4) : inverted cone bur</li><li>2.5mm inverted cone</li></ul>	
	가	15 Wax block(기 36mm, 7mm base plate wax) 3 wax block 130°	24mm,
(Fluid resin system ) , Brewer Cardash	Morrow, Schoonover,	Silicone Mold . Silicone Mold wax block . R.T.V. 1300 , 10mm	가 Mold
		Mold 15mm wax block  1 )  Compression molding flask stone	.(Fig.
Acrylic resin	가	moldso wax block  brush  Keroseneethet 1:1	

Acrylic resin

□.서 론

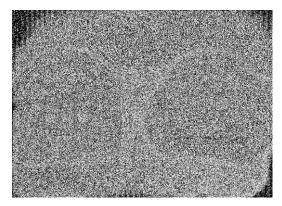


Fig 1. Silicone mold for pattern replication

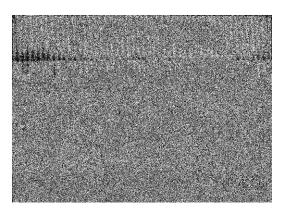


Fig 2. The acrylic resin tooth specimens attached heat-cures denture base resins

resin Trial press cellophane closure flask가 metal to metal final press 가 contact hand Curing Container 165 press 9 30 bench cooling 20 mold가 mold 15 3 5 resin block .(Fig. 2

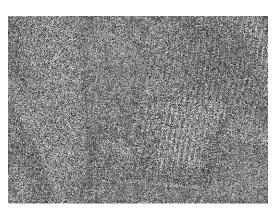


Fig 3. The specimen is in the Spring test machine

#### 2. 인장강도 측정

)

resin
Spring test
machine resin block
6mm fissure bur
wire
2mm hook
Wire
フト resin
フト (Fig. 3

#### Ⅲ. 결 과

Acrylic resin resin Table 1 . resin 80%, resin 7% . (P>0.05)(Table 2)

Table 1. Tensile strengh of bond between arcylic resin teeth and denture base resin

	Group				
	1	2	3	4	
n	15	15	15	15	
Mean Applied force (kg)	28.0	26.5	28.3	29.2	
S.D.	5.9	6.7	5.4	6.1	

Table 2. Table of analysis of variance

	SS	df	MS	F	P
Between groups	79.7	3	26.57	0.678	>0.05
Wi thin groups	2192.3	56	39.15		
Total	2272	59			

### Ⅳ. 총괄 및 고찰

acrylic resin

가 resin

가

resin block

130°

class

resin resin base 가

. Acrylic resin

resin

Caul Shepard 가 Acrylic resin resin Morrow bur

indentation

가 wax 가

> wax 가 가

#### ∨. 결 론

Acrylic resin resin

가

#### 참고문 헌

- 1. 金英株:總義齒 補綴技工學, 서울, 1979. 明成文化社。pp. 150-287.
- 2. O'brien, W.J., Ryge, G.: An outline of dental materials, Philadelphia, 1978.
- 3. Schoonover, I.C. et al.: Bonding of plastic teeth to heat cured denture base resins. J.A.D.A 44: 285-287, 1952.

- 4. Morrow, R.M. et al.: Bonding of plastic teeth to two heat-curing denture base resins, J. pros. Dent. 39: 565-568, 1978.
- Dirksen, L.G.: Plastic teeth: their advantages, disadvantages and limitations, J.A.-D.A. 44: 265-268, 1952.
- 6. 松尾智昭:前歯郎レンヅ人工歯の脱落 防止する太めイニに、歯科技工 Vol. 12, No. 2, pp. 214-217, 1984.
- Blakeslee, R.W., Renner, R.P. and Shiu,
   A.: Dental technology. St. Louis, 1980,
   The C.V. Mosby Co., pp. 25-26, pp. 136-138.
- Phillips, R.W.: Skinner's science of dental materials, ed. 8, Philadelphia, 1982, W.B. Saunders Co. pp. 211-212, p. 183.
- 9. Morrow, R.M., Rudd, K.D. and Eissmann,

- H.F.: Dental Laboratory procedures, Vol. 3, St. Louis, 1981, The C.V. Mosby Co., pp. 372-375.
- Brewer, A.A., Morrow, R.M.: Overdentures, ed. 2. St. Louis, 1980, The C.V. Mosby Co., p. 117.
- Cardash, H.S. et al.: The effect of retention grooves in acrylic resin teeth on tooth denture-base bond, J. pros. Dent: 526-528, 1986.
- 12. Caul, H.J., Stanford, F.W. and Serio, A.F.: Property of self-curing denture base resins, J.A.D.A. 44: 295, 1952.
- 13. Shepard, W.L.: Denture bases processed from a fluid resin, J. Pros. Dent. 19: 561-572, 1968.