

Original Article

## Development of Simulated Resin Jaw in Endodontic Laboratory

---

**La-ongthong Vajrabhaya**

Professor  
Faculty of Dental Medicine,  
Rangsit University

**Saisawart Thongsuphan**

Assistant Professor  
Faculty of Dental Medicine,  
Rangsit University

**Salinee Runghirunskul**

Lecturer  
Faculty of Dental Medicine,  
Rangsit University

**Suwanna Korsuwannawong**

Senior Researcher  
Faculty of Dentistry,  
Mahidol University

**Correspondence to:**

Professor La-ongthong Vajrabhaya  
Faculty of Dental Medicine,  
Rangsit University  
Muang - Ake, Lak-Hok, Muang District,  
Pathumthani 12000  
E-mail: dtlvj@mahidol.ac.th

**Abstract**

The simulated resin jaw was developed for dental students at Rangsit University's faculty of dental medicine to practice in the endodontic laboratory. The jaw model was designed so that it could be used with the electronic apex locator to find the root length, which was then compared with that from the radiograph. The acceptable root length from the electronic apex locator should be within the range of  $\pm 0.5$  mm from the radiographic apex. The result revealed an intraclass correlation coefficient of 0.972 (95% CI = 0.953, 0.984). There was a high correlation between the electronic apex locator and radiograph in determining the root length (96.2%). The use of the electronic apex locator with this resin jaw model is advantageous in regards to endodontic study and highly useful in ensuring better efficiency in future clinical practice.

**Key words:** apex locator; laboratory; radiograph