

This in vitro study was aimed to evaluate the shear bond strength of orthodontic brackets that be cured with two types of light emitting diode (LED).Thirty extracted premolar teeth were divided arbitrarily into two groups. Each one of these groups consisted of 15 teeth framed in an acrylic block. After standard enamel etching procedure, each orthodontic brackets were cured on the first group of teeth with low intensity curing unit ($1000-1200\text{mW}/\text{cm}^2$) for 20 second, the second group with high intensity curing unit ($5000-6000\text{ mW}/\text{cm}^2$) for 6 second. For each bracket, its strength of shear bond was tested with a universal computerized testing machine. The results showed that brackets cured with low intensity LED produced the highest shear bond strengths (36.6 MPa) while with high intensity show (33 MPa) with no significant difference was found between them. the study can recommend the high intensity LED curing units as this can save time and decrease chair time.