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**The effect of warming anesthetic solution prior to local anesthesia in children. BENJAMIN PERETZ\*, DIANA RAM. Hadassah School of Dental Medicine, Jerusalem, Israel.**

The purpose of the study was to assess children's reaction to pain when receiving a local anesthetic injection warmed to 37° C (WLA) compared to the solution injected at ambient temperature (21°C)(AT). 44 children between the ages of 6 to 11 (mean age  $7.89 \pm 2.16$  years) participated in the study. Half an hour prior to the beginning of each injection a cartridge of local anesthetic solution was placed in a temperature-controlled water bath maintained at 37° C and another one in a water bath at room temperature (21° C). A random cross-over design was used. The Behavioral Pain Scale suggested by Tadio, the Wong-Baker FACES Pain Rating Scale (FPS) and visual analogue scale (VAS) were used. Children's reactions to injection in both groups regarding facial expression, hands, legs and torso movements were similar, with no statistical significant difference no matter which injection they received during the first or second visit. The same children cried, and/or squeezed the eyes, moved the legs, hands or torso when received either the WLA or the AT local anesthesia. No significant difference was found between boys and girls regarding the objective signs. A significant difference was found between girls and boys in the subjective ranking using the FPS. While no girls ranked the experience of local anesthesia as negative, 40 boys (91%) ranked it as positive while 4 boys (9%) ranked the same experience as negative ( $p=0.048$ ). No difference was found in the self-report of children using the VAS when receiving a WLA or an AT local anesthesia. Conclusion: No difference was found in objective pain when children received an ambient temperature or a warmed local anesthesia.