

Thesis Title Effects of Heparin Subcutaneous Injection
 on Bruising and Pain
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ABSTRACT

Hematoma or bruising at the injection site is a common problem found in heparin subcutaneous administration due to its anticoagulant effect. Bruising may have negative consequences, that is the increased localized pressure causes the patient's physical discomfort. The associated discoloration in a highly visible area may adversely affect the patient's body image. Thus effective technic which can result in fewer bruising is essential for nursing care practice. The purpose of this study was to investigate the effective method between Z-track, Bunch technic and Bunch technic with ice-compress in relation to bruising and pain at the injection site. The study sample comprised of 21 patients with Cardio-Vascular problems admitted to medical wards at Prince of Songkhla Hospital for whom receiving heparin administration every 12 hours. Each patient was injected at three different period of time with three different methods : Z-track, Bunch technic and Bunch technic with ice-compress. For each treatment, the assistant researcher recorded the bruising size and the level of pain sensation.

Data were analysed by using two-way analysis of variance and Newman-Keuls test in order to analyze the difference of the bruising and the level of pain sensation.

The study showed that after injection 48 and 72 hours, Z-track caused significantly larger bruising than Bunch technic and Bunch technic with ice-compress ($p < 0.05$) and after injection 48 hours Z-track also caused significantly higher level of pain. ($p < 0.01$). Bunch technic and Bunch technic with ice-compress have no significant difference in the bruising size and the level of pain.

As the result of this study, the researcher suggest that Bunch technic should be used in heparin subcutaneous administration and may use ice compress if the patient have sever pain. For further study, repetition of the study is recommended and different part of the body is recommended for site of injection in order to find the most effective way of heparin injection.