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**THE RELATIONSHIP BETWEEN TYPE OF ANESTHESIA AND  
INCIDENCE OF POSTOPERATIVE CONFUSION IN ELDERLY  
FEMALE HIP FRACTURE PATIENTS**

**AN ABSTRACT OF  
A THESIS  
PRESENTED TO THE GRADUATE FACULTY  
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**by**

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### Abstract

The purpose of this ex post facto study was to determine whether the presence of confusion in elderly female hip fracture patients was independent of the type of anesthesia used in the surgery directed to repair the hip fracture. The target population for this study was elderly female hip fracture patients who were 65 years old or older, and were admitted to one acute care hospital in an alert and oriented state. A convenience sample of 40 medical records of these patients of which 20 were administered general anesthesia and 20 were administered spinal anesthesia during the surgery. The two groups were compared on a number of patient characteristics (e.g. age, preoperative and postoperative hematocrit level, time in surgery, blood loss, length of stay, and narcotic use).

A 2 x 2 chi square analysis was executed to evaluate whether the presence of confusion was independent of the type of anesthesia (general or spinal) administered. No significant differences in the incidence of confusion as a result of the type of anesthesia were revealed. Further analysis was then performed. A one-way chi square analysis on the data from each of the anesthesia groups was done. It was found that significantly less patients who were administered general anesthesia experienced confusion postoperatively than did not experience confusion. Those patients who had hip repair surgery under spinal anesthesia did not reveal any significant differences between the number of patients who displayed confusion versus those that did not display confusion. The general anesthesia group was also found to be significantly younger and received significantly more postoperative narcotic medication than did the spinal group. These two findings suggest that the presence of confusion is not a

consequence of the postoperative narcotic pain medication, but most likely the combined effects of age difference and anesthesia difference. These findings may have implications in preoperative and postoperative pain management in the elderly hip fracture patient.