Radiation Exposure during Percutaneous Spinal Injection Procedures

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The purpose of this study is to measure the amount radiation during percutaneous spinal procedures. Small nanodot radiation detectors will be placed underneath patient during spinal injection procedures. These detectors will be read with a Landauer reader.  The amount of radiation during each procedure will be recorded along with the settings on the C-arm for amount, strength and time of exposure. Ultimately, it is hoped to determine the amount radiation per second for these procedures.

Our primary goal is to determine the amount of radiation used during these procedures. To date there are no studies that provide information regarding this issue. There are studies of the amount of radiation during orthopedic ASC procedures.

There will be no change in the treatment of the patients that are used in the study. This is merely a monitoring study of treatment being performed. The radiation will not change on the basis of the study. We have done trials with the nanodots and have determined that the nanodots provide the data needed for this study.

All the patients receiving injections in the ASC at Executive Park by the primary investigator will be measured over the next year. Approximately 1000 patients will be measured.

Statistical analysis will be done by the team in the public health department.

Adverse events are not expected. This in no way would compromise any patient’s safety. This is only a monitoring study.