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AUTOMATED CT GUIDED BIOPSIES WITH PRECISE CT GUIDED ARM: OUR INITIAL EXPERIENCE

AIM:

To demonstrate the efficacy of the automated CT guided planner in doing the ct guided biopsies in different locations with high accuracy.

MATERIALS AND METHODS:

The clinical trial was done in our institution from November 2008 to April 2009 which included 26 patients .The study included seventeen males and nine females with age group ranging from 11 years to 56 years. Among the 26 lesions 11 were in lung,5 in abdomen and 6 in vertebrae.

All the procedures were done using PIGA (Precise Intelligent CT Guided Arm) machine using 8 slice CT scanner, under local anaesthesia and aseptic precautions, under the supervision of trained radiologists.

After marking the point of entry and target lesion, path of the needle is confirmed on the console the system calculates , coordinates angle & depth and positions the biopsy arm.

RESULTS:

The mean lesion size was 2.3 cms. All the biopsies yielded sufficient tissue for pathological evaluation (yield rate-100%). we did not encounter any complications in our study.PIGA helps in precise placement of needle in complex angulated approaches. This method is more patient friendly and ensures maximum safety. The average procedure time and radiation exposure is reduced by 50% as compared to the routine manual method.

Automated planning scores over manual planning in terms of technical difficulty, number of needle passes, time consumed, number of check scans and hence the patient's radiation dosage.

CONCLUSION:

This clinical trial depicts the advantages of the automated CT guided planner in reducing the procedure time and radiation dose and ensuring patient safety, thus making it acceptable for the routine clinical practice.