OPEN ACCESS Freely available online

Journal of Medical Diagnostic Methods

ISSN: 2168-9784

Short Communication

Transmissionof Hepatitis C after Biopsy

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ABOUT THE STUDY

Biopsy is a recent and well-documented technique; antibiotic therapy and rectal enema reduces the infection risk. No viral transmission between patients caused by a contaminated ultrasonography probe has been documented. Prostate cancer, the most frequent malignancy in males, can only now be diagnosed in urology via prostate biopsy. In France, between 120,000 and 150,000 biopsies are performed annually, leading to 50,000 new cases of prostate cancer being identified.

The majority of prostate biopsies are transrectal, and the risk of infection is predicted to be between 2 and 5% with an antibiotic prophylaxis like a quinolone (vs 30 to 40% without an antibiotic prophylaxis). The surgery itself, which is carried out in a sterile environment, is responsible for this infection risk. No risk of virus transmission between patients as a result of contaminated ultrasonography probes has been documented to yet can be regarded as being quite low in these processes [1].

Although it continues to be secondary to contamination from IV drug misuse (which accounts for 70% of the 50,000 new cases each year), nosocomial and non-transfusional transmission of HCV has grown to be a significant method of infection. Extremely infrequently, endorectal prostate biopsies can transmit HCV. There are currently no documented instances of such transmission. The risks of viral transmission (including HIV and hepatitis B and C) during prostate biopsies have only been assessed in one recent prospective study. None of the 528 patients whose biopsies were taken for this study demonstrated hepatitis C seroconversion [2].

In reality, stains made up of blood, mucus, and mucosal remnants from the mucosa after the biopsy were left over during the examination of an HCV-positive patient. Even if the tools are washed right away after the surgery, organic pollutants may still be present after manual washing. It's likely that oxidizing disinfectants, which operate on the surface of the debris, create a bio film, a protective layer, which hinders the disinfectants' ability to work thoroughly. The material and its biofilm could separate upon future use and contaminate the next patient [3]. When washing time is short, there is a lengthy period between contamination and washing, and the equipment is old or scratched, this type of contamination occurs more frequently.

Using new equipment for every examination is now the only option to entirely prevent transmission associated to a bio film, which is not practicable for some procedures like endoscopies and laryngoscopies. Theoretically, this contamination is consequently more frequent when carrier patients are served by the hospital [4].

Numerous studies have examined the integrity of protective sheaths as determined by the rate of perforation, with a focus on transvaginal and transrectal probes. These investigations, which included randomized and nonrandomized trials as well as comparative and non-comparative studies, centred on condoms or other forms of protection (used as sheaths). Visual inspection or different tests, such as looking for water or hydrogen peroxide leaks, are used to find perforations. None of these investigations, however, examined the contamination risk for infection [5].

According to international guidelines, prostate biopsies should be performed using a single-use biopsy guide or, if the guide is reusable, it should be sterilized in an autoclave using water vapour. A hospital investigation revealed multiple instances of medical equipment used in prostate biopsies not being properly sterilized, which was brought to the attention of the FDA and other American authorities.

They emphasized the significance of completely sterilizing reusable puncture guides and using the designated brushes provided with these guides, and they reiterated the necessity of following sterilization requirements. These brushes make it possible to clean these guides properly, especially the light, which can contain infections.

CONCLUSION

This instance of contamination after a prostate biopsy ought to serve as a reminder to medical professionals to rigorously follow the guidelines for current sterilizing practices, utilize protective sheaths, check the integrity of those sheaths after use, and employ single-use puncture guides. The FDA mandates, among other things, that each component of the guide must be individually

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Received: 04-Jul-2022, Manuscript No. JMDM-22-21418; **Editor assigned:** 06-Jul-2022, Pre QC No. JMDM-22-21418 (PQ); **Reviewed:** 26-Jul-2022, QC No. JMDM-22-21418; **Revised:** 04-Aug-2022, Manuscript No. JMDM-22-21418 (R); **Published:** 15-Aug-2022, DOI: 10.35248/2168-9784.22.11.387.

Citation: Elva B (2022)Transmisson of Hepatitis C after Biopsy. J Med Diagn Meth.11:387.

cleaned and sterilized, and that any residue must be visually checked.

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