

POSTER PRESENTATION

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Ensuring infectious safety of colonoscopy

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Introduction / objectives

The growing prevalence of infectious diseases among patients, including HIV infection, increases the risk of transmission of an infection during endoscopic procedures. In 2009 the first 3 cases of HIV transmission through colonoscopy were reported in the USA.

Objective

Studying of infectious danger of colonoscopes, processed in the manual and automated way.

Methods

Microbiology (determination of total bacterial contamination, IgCFU/ml).

Materials

Swab samples taken from instrumental channels of colonoscopes immediately after the procedure (sample 1), after mechanical brushing of channels (sample 2), and after completing high-level disinfection (HLD) or a complete reprocessing cycle in the Automatic Endoscope Reprocessor (AER) ASP Johnson & Johnson (sample 3). Swabs taken from 48 colonoscopes were studied.

Results

Bacterial contamination of instrumental channels (samples 1, 2, and 3) in 17 colonoscopes after their use, brushing, and processing in AER was 8.7 (8-10), 4.74 (3.32-6.3), and 0 IgCFU/ml, respectively. Bacterial contamination (samples 1 and 3) of 16 colonoscopes processed in AER only was 8.87 (8-9.7) and 3.8 (2.7-4.85) IgCFU/ml, respectively. Bacterial contamination (samples 1, 2, and 3) of 15 colonoscopes cleaned manually was 8.99 (8-10.4), 5.2 (3-6.7), and 2.9 (2.7-4.1) IgCFU/ml, respectively.

Conclusion

Processing of colonoscopes in the AER, after preliminary brushing of channels, is the most reliable and effective. In 2008, we have proved that the endoscopes after use on HIV - infected patients represent essential infectious danger. HIV was isolated in the MT-4 human T-lymphoblastoid cells in 33 of 35 (94.3%) samples taken from instrumental channels of endoscopes directly after use and in three samples (8.6%) after completing HLD. All cases of ineffective cleaning were associated with violations of national standards.

Disclosure of interest

None declared.

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