Keamanan Pemakaian Ulang Vitrektor Single-Use pada Tindakan Bedah Vitrektomi Pars Plana: Uji Mikrobiologi Prosedur Reprocessing dengan dan Tanpa Pembilasan Povidone-Iodine 5% = Safety of Reusing Single-Use Vitrector in Pars Plana Vitrectomy Surgery: A Microbiological Study of Reprocessing Procedure with and without 5% Povidone-Iodine Flushing

Sita Paramita Ayuningtyas, author

Abstrak

[ABSTRAK
Penelitian ini merupakan randomized, single blind controlled trial yang bertujuan untuk menilai keamanan pemakaian ulang vitrektor single-use. Penelitian ini menilai proporsi, jumlah koloni dan spesies mikroorganisme yang tumbuh pada vitrektor bekas pakai satu kali yang menjalani reprocessing dengan dan tanpa pembilasan povidone-iodine 5%. Sebanyak 88 sampel vitrektor 23G dirandomisasi menjadi dua kelompok yaitu kelompok I yang menjalani reprocessing saja dan kelompok II yang menjalani pembilasan povidone-iodine 5% dan reprocessing. Kultur mikroorganisme dilakukan pada bagian tip dan bilasan lumen tip-connector-extension cairan. Pada kelompok I, ditemukan pertumbuhan bakteri Staphylococcus hominis pada satu tip (2,3%), sedangkan semua bilasan lumen steril. Pada kelompok II, semua kultur tip dan bilasan lumen steril. Walaupun tidak terdapat perbedaan signifikan proporsi pertumbuhan mikroorgansime di kedua kelompok (p=1,000), pertumbuhan bakteri pada kelompok I dapat berpotensi memiliki dampak klinis dan mikrobiologi yang berarti.
<hr>
ABSTRACT
A randomized, single blind controlled trial was done to evaluate the safety of reusing a single-use vitrector. This study evaluated the proportion, number of colony, and the species of microorganism growth from vitrectors, which underwent reprocessing with and without 5% povidone-iodine flushing. Eighty-eight samples of 23G vitrector were randomized into two groups; Group I undergone direct reprocessing (cleaning, disinfection, repackaging, and ethylene oxide sterilization), whereas Group II were flushed with 5% povidone-iodine before undergone reprocessing. Microorganism culture of vitrector was performed for the tip and flushing of the tip-connector-fluid extension lumen. In Group I, Staphylococcus hominis was found on culture of one tip (2,3%), whereas all lumen cultures were negative or sterile. In Group II, all tip and lumen cultures were negative or sterile. Although no significant difference in proportion of microorganism growth between groups (p=1.000), microorganism growth found in Group I might have a clinical and microbiological effect.
;A randomized, single blind controlled trial was done to evaluate the safety of reusing a single-use vitrector. This study evaluated the proportion, number of colony, and the species of microorganism growth from vitrectors, which underwent reprocessing with and without 5% povidone-iodine flushing. Eighty-eight samples of 23G vitrector were randomized into two groups; Group I undergone direct reprocessing (cleaning, disinfection, repackaging, and ethylene oxide sterilization), whereas Group II were flushed with 5% povidone-iodine before undergone reprocessing. Microorganism culture of vitrector was performed for

the tip and flushing of the tip-connector-fluid extension lumen. In Group I, Staphylococcus hominis was found on culture of one tip (2,3%), whereas all lumen cultures were negative or sterile. In Group II, all tip and lumen cultures were negative or sterile. Although no significant difference in proportion of microorganism growth between groups (p=1.000), microorganism growth found in Group I might have a clinical and microbiological effect.

, A randomized, single blind controlled trial was done to evaluate the safety of reusing a single-use vitrector. This study evaluated the proportion, number of colony, and the species of microorganism growth from vitrectors, which underwent reprocessing with and without 5% povidone-iodine flushing. Eighty-eight samples of 23G vitrector were randomized into two groups; Group I undergone direct reprocessing (cleaning, disinfection, repackaging, and ethylene oxide sterilization), whereas Group II were flushed with 5% povidone-iodine before undergone reprocessing. Microorganism culture of vitrector was performed for the tip and flushing of the tip-connector-fluid extension lumen. In Group I, Staphylococcus hominis was found on culture of one tip (2,3%), whereas all lumen cultures were negative or sterile. In Group II, all tip and lumen cultures were negative or sterile. Although no significant difference in proportion of microorganism growth between groups (p=1.000), microorganism growth found in Group I might have a clinical and microbiological effect.

]