Efficacy of povidone iodine solution combination versus 2% chlorhexidine in water in urologic surgery

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Objective: The objective of the study is to compare between 2% chlorhexidine in water and povidone iodine solution seeing whether there are any differences in using them to prepare skin before surgery.

Design: This research used a randomized controlled trial in a prospective cohort study.

Implementation: The samples were patients undergoing opened urologic surgery during working hours at surgical operating room of Ramathibodi hospital with no differentiation in sexes, ages, and procedures. Excluded groups were patients undergoing laparoscopic surgery, unplanned re-operation, and ones with skin infection. 100 patients were randomized using computer generated random allocation and separated into two groups. Group 1 was applied with 2% chlorhexidine in water and group 2, povidone iodine solution around the site of incision. Data analysis was done using SPSS program and Fisher's exact test to compare differences between the groups.

Results: The study comparing 2% chlorhexidine in water and povidone iodine solution, the results are that both could be similarly used with p-value from Fisher's exact equaled to 0.617.

Recommendation: 2% chlorhexidine in water could be safely used to prepare skin before surgery. So it could be an alternative for surgeons to use. This could be counted as a new knowledge which could lead to changes for entire population.