

DOES A CATHETER WITH MORE FASHIONABLE APPEARANCE IMPROVE PATIENT SATISFACTION WITH SELF-CATHETERIZATION?

Hypothesis / aims of study

Conventional types of portable, reusable catheters for self-catheterization have all the appearance of medical devices, and thus many patients are disappointed when seeing the catheter for the first time or are ashamed to carry the catheter with them. From the viewpoint of female patients, we tried to develop a catheter (SAFETY CATH) with not only improved functionality but also sophisticated design so that they could select a catheter as if selecting glasses or cosmetics and perform self-catheterization willingly with a catheter they selected themselves.

Study design, materials and methods

Fourteen females aged 14 to 87 years with neurogenic bladder performing self-catheterization were instructed to use a SAFETY CATH for one month and evaluate the design, operability, and degree of satisfaction. The flow rate was compared among 12F catheters with different lumen widths, number of holes, and hole position to determine the final design for the SAFETY CATH.

Results

The catheter case has a compact size of 15cm in length and features a two-tone color of pearl and pink, similar to cosmetics. The oval-shaped cap is designed to accommodate use with the fingers for the necessary force to open and close the cap. The catheter case has a window that allows the user to monitor the volume and cleanliness of the antiseptic solution. Measurements of the flow rate led to the conclusion that the flow rate is not increased with an increased number of holes on the catheter but increased with a larger lumen as long as the size and number of holes remain constant. On the basis of these findings, the catheter was designed to have a lumen that is 180% that of a conventional 12F catheter, producing a 40% increase in the flow rate. Additional improvements were made to the material (silicone coating) and operability. A survey on satisfaction showed that 7(50%) of the 14 patients were satisfied with the catheter.

Interpretation of results

Because of its more fashionable appearance and larger lumen compared with conventional catheters, SAFETY CATH is expected to improve patient satisfaction with self-catheterization and produce a higher flow rate and shorter time for urination.

Concluding message

SAFETY CATH is expected to improve patient satisfaction with self-catheterization

References

FUNDING: NONE