

Isolator equipped with shelves in gnotobiotic pigs

Tae Sung Han, Gonhyung Kim, Min Jae Lee¹, and Seok Hwa Choi*

Department of Veterinary Surgery, College of Veterinary Medicine, Chungbuk National University, Chungbuk 361-763, Republic of Korea

¹*Department of Laboratory Animals, College of Veterinary Medicine, Kangwon National University, Kangwon 200-701, Republic of Korea*

Purpose: A sterile environment for production of gnotobiotic pigs can be managed using a microbially impervious barrier (isolator). The aim of this study was to determine the production of gnotobiotic pig in a gnotobiotic isolator equipped with shelves.

Materials and Methods: The flexible PVC film isolator was made 95 cm (height) x 90 cm (width) x 170 cm (length). Isolator had flexible barriers and attached ten rubber gloves were used for protecting sterile workspaces. Isolator was designed pass-through autoclaves for sterilizing and entering supplies as well as equipped with a dip tank. Shelves were located at the right and left sides of a flexible PVC film isolator. Shelves were manufactured 6 cm (height) x 30 cm (width) x 80 cm (length).

Results: When the uterus was exposed through a midline incision in a flexible PVC film isolator, shelf was protected contaminated mother or for carrying out various procedures on gnotobiotics. Piglets were sterilely removed from the uterus inside of an isolator.

Conclusion: These results suggest that a microbially impervious isolator equipped with shelves is suitable isolator for gnotobiotic piglet production.

Key words: gnotobiotic, isolator, shelves, pig

This work was supported by a grant (Code #20070303034044) from BioGreen 21 Program, Rural Development Administration, Republic of Korea.

* Corresponding author: shchoi@cnu.ac.kr