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AN ASEPTIC PERITONEAL CELL COLLECTION TECHNIC FOR SMALL LABORATORY ANIMALS[1,2,3]

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SUMMARY • *Peritoneal exudate was collected by introducing a lavage medium (sterile saline or an equivalent) via syringe and needle into the peritoneal cavity of the anesthetized animal. The lavage medium was recovered by allowing it to flow through the needle into a sterile container. This method guards against contamination. Eighty to 90% of the initial lavage volume is retrieved.*

KEY WORDS • *Peritoneal lavage—Peritoneal exudate—Irrigation—Intraperitoneal*

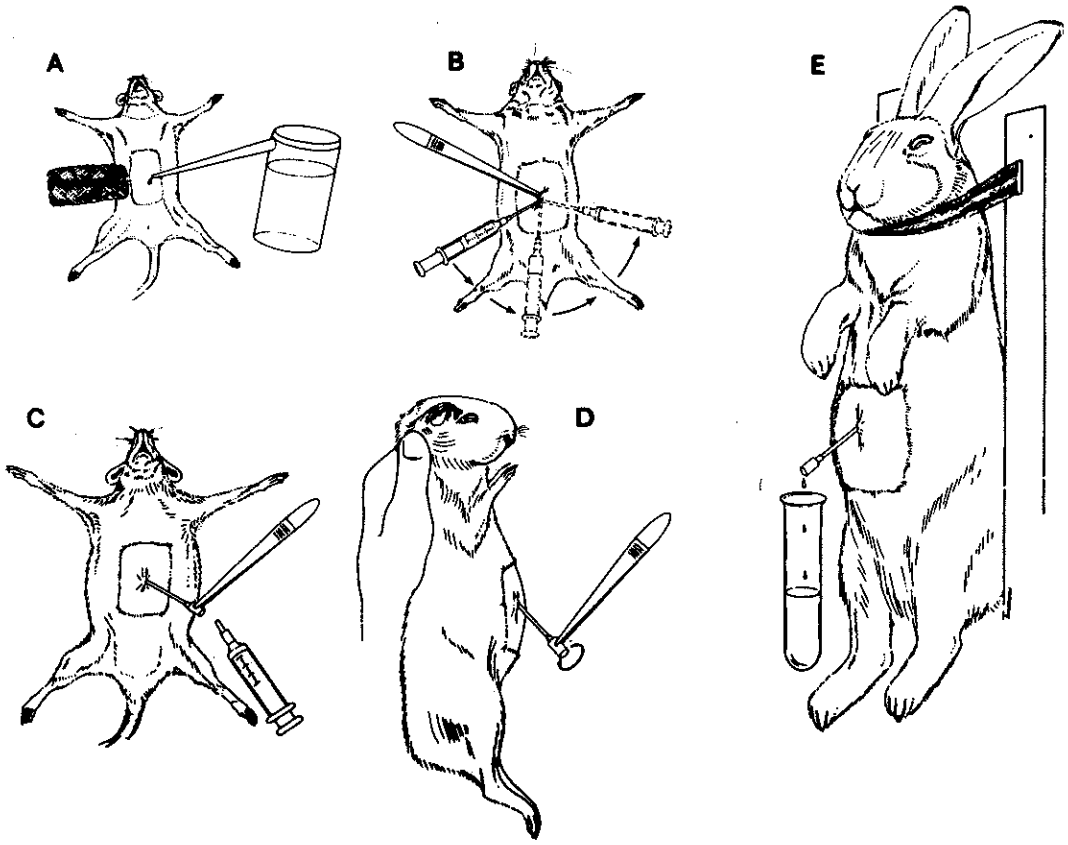

Fig 1. *Peritoneal lavage technic: A) Abdomen shaved and thoroughly cleansed with alcohol and sterile gauze; B) needle inserted into peritoneal cavity and lavage medium introduced; C) syringe barrel removed, leaving needle in place; D) needle manipulated to initiate flow; E) exudate flows into sterile container.*

In procedures requiring the *in vitro* culturing of cells collected from the peritoneal cavity of laboratory animals, the method of collecting cells must avoid microbic contamination

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of both the animal and the peritoneal sample.

Materials and Methods

A syringe is filled with sterile saline or an equivalent, and a needle is attached. A 6cc syringe with 19-ga needle is used for the mouse; 12cc syringe with 19-ga needle for the hamster; 35cc syringe with 19-ga needle for the rat; 60cc syringe with 16-ga needle for the guinea pig; and 2 60cc syringes with 13-ga needle for the rabbit.

The animal is anesthetized and the abdomen shaved and cleansed thoroughly with alcohol (Fig 1a). The skin is carefully lifted and held with sterile forceps, and the needle is inserted into the lower portion of the peritoneal cavity. The lavage medium is then introduced by forcefully pushing the syringe plunger while moving the syringe from side to side (Fig 1b). The syringe barrel is then removed from the hub with sterile forceps. It is important that the needle remain in the peritoneal cavity (Fig 1c). The animal is held by the nape of the neck (rabbits are placed in a rack), and the needle is manipulated with sterile forceps to initiate flow (Fig 1d). The lavage medium then flows through the needle into a sterile container (Fig 1e). Eighty to 90% of the initial lavage volume is retrieved.