

## CURRENT COMMENT AND CASE REPORTS

CURRENT COMMENT is a new department in ANESTHESIOLOGY. In it will appear invited professional and scientific correspondence, abbreviated reports of interesting cases, material of interest to anesthesiologists reprinted from varied sources, brief descriptions of apparatus and appliances, technical suggestions, and short citations of experiences with drugs and methods in anesthesiology. Contributions are urgently solicited. Editorial discretion is reserved in selecting and preparing those published. The author's name or initials will appear with all items included.

### THE DETECTION OF LEAKY AMPULES

It has long been recognized that ampules with an imperfectly closed tip may escape the detection of the manufacturer. Also, a slight crack in the glass may occur while handling the ampules in the hospital, when a pick-up forceps of some kind is used to emerge them or to remove them from an antiseptic solution. Through such small imperfections in the glass, antiseptic solution may leak into the ampule, diluting and contaminating the contents.

Certain chemical antiseptics may be innocuous to tissue and others may be very irritating. This may be true especially when the solution is injected into the spinal canal. Some antiseptic solutions contain formalin. If an ampule remains emerged in such a solution for a considerable period of time, the contents of the ampule not only will be diluted and contaminated by the amount of solution which leaks into it, but, under the rules of osmotic pressure, the formalin will be transmitted into the ampule more rapidly than the rest of the solution until the ampule contains the same percentage of formalin as does the antiseptic solution. Thus it is possible that if an imperfect ampule of anesthetic is emerged in an antiseptic solution containing formalin, serious damage may occur.

Ampules containing dry crystals very quickly will show the presence of liquid which has leaked into them. The presence

of intruding fluid is not so easy to detect in ampules containing a solution. If one is very alert he may notice that the ampule is fuller than usual, but the difference in amount of content must be considerable to attract attention.

A satisfactory way to detect such contamination is to tint the antiseptic solution with some bright coloring matter. Gentian violet, eosin, and colored metaphen solution are satisfactory. If the ampule has been emerged for some time, the outside of the glass occasionally is colored when it is removed. It should then be wiped clean in order to be sure that the content is not colored. Some solutions are now being dispensed in colored glass. In such a case the contents must be sucked into a syringe before its color can be judged.

At the University of Minnesota Hospitals for years it has been the practice to emerge ampules in a colored antiseptic solution. On an average of three or four times a year we have discovered the contents of an ampule to be colored when we were unable to detect any defect in the glass of the ampule.

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### FATAL PULMONARY EMBOLISM DURING MANIPULATION OF HIP UNDER ANESTHESIA

On November 4, 1943, this 76 year-old woman fell and sustained a fracture of the neck of the left femur. She was hospitalized and treated by traction. On November

19, two weeks after the injury, she was transferred to Walter Reed General Hospital for further treatment.

Physical examination revealed that the