Non-Irritant Disposable Aspirator

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ABSTRACT

Aspirators are devices used to discharge blood and other fluids from the environment accumulated in bleeding part during surgery. In surgical operations clear vision of surgical area is one of the important factors affecting the success of surgery. In this article we mentioned about a solution to aspiration problem in difficult conditions by usage of a material which is available in all operating rooms.

Keywords: aspirator, disposable aspirators, cleft palate aspirator

1. INTRODUCTION

Aspirators are devices used to discharge blood and other fluids from the environment accumulated in bleeding part during surgery [1]. Generally, they consist of a sucking pump and the reservoir where sucked fluid is gathered [2]. In order to prevent the aspiration catheter to stick to tissues and getting blocked negative pressure pump is used instead of vacuum [3].

In surgical operations clear vision of surgical area is one of the important factors affecting the success of surgery. In order to intervene the area in case of bleeding the blood and fluids in the environment should be quickly discharged from the area. For this reason, aspirator usage is essential as much as surgical tools during operation. From time to time due to sterilization problems and also due to blockages because of low pressure aspirator nozzle needs to be changed. However, this can be a problem due to low quantity of sterile aspirators in the environment.

In this article we mentioned about a solution to aspiration problem in difficult conditions by usage of a material which is available in all operating rooms.
2. MATERIAL AND METHOD

An insulin injector which is available in all operating rooms is taken to table steriley. The bulges on the sides are cut with the help of scissors or bisturi from 10 diziem limit. In order to make arbitrary pressure regulation a hole is carved on it. If the area of operation is narrow these activities are enough but if a wide surface aspiration is required, the area where needle is placed is cut with the help of a bisturi to make whole chamber usable and aspirator nozzle can be expanded. It can be connected to aspirator device if available and to central vacuum panel if not available.

3. DISCUSSION

Aspirator is a simple but important surgical tool used almost in all operations. It is very important for removing the blood from cut or dissected places and clearing the path for surgeon. Today aspirators are available everywhere, but some problems may occur due to expired sterilization date (unrealized), finished existing aspirators or sterilization malfunction of aspirators during operation. We have defined insulin nozzle aspirator force such situations.

Insulin injector is a tool found in all operating rooms, it is quickly accessible and is easily compatible to aspirator cable. At the same time, it has a thin nozzle, so it can be inserted in narrow places thus providing an advantage in surgeries such as rhinoplasty and cleft palate. Also, it gives minimal damage to artery, nerve and vein structures in microsurgery operations due to its plastic and obtuse structure. Also, metal aspirators with thin nozzle are sterilized numerous times and they can be damaged due to repetitive sterilizations. Apart from this they can cause unintentional harm on tissues due to being metal. Metal aspirators may cause erosion on mucosa due to over-pressing and friction with surrounding while plastic, soft and obtuse nozzle of insulin nozzle aspirator is an advantage for us.

The existing single use plastic aspirators with obtuse nozzle have large size so they cannot fulfill expectations when working in narrow areas. Due to these reasons we think that aspirator with insulin nozzle is advantageous against aspirators with metal nozzle and plastic large aspirators in situations not only when aspirators are not accessible but also in cases where operation is made on narrow areas or in fragile areas where easy injury may occur such as eyes or mucosa.

4. CONCLUSION

In places where sterilization is not sufficient despite of surgery intensity, in rural areas where aspirator is not accessible and in special surgeries where an aspirator with thin and obtuse nozzle is required, we defined an aspirator made of insulin injector in order to prevent searching for aspirator and also in order to prevent tissue damage by aspirators with thin metal nozzle due to numerous usage and sterilization. We think that this tool is a cheap, easy to access, practical and ideal material.
REFERENCES