

Use Of Towel Clips As Skin Retractors In Surgery

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Abstract

Surgical practitioners are faced with challenges in developing countries and these include provision of surgical instruments. Innovations could make up for lack or absence of surgical instruments already in use. The aim is to evaluate the use of towel clips as an alternative for skin retraction. Towel clips were used as skin retractors during exploratory laparotomy for a ruptured appendix in an obese patient, following non-availability of an adequate retractor. The maneuver was to retract the skin for adequate exposure of the operating field. It showed that towel clips could be used adequately as depicted in the pictures and possibly for other operations, where retractors may not be available. Skin retraction could be one of the uses of towel clips, and should be tried in places where other instruments are not available, keeping in mind the contraindications.

INTRODUCTION

One of the cardinal points for a good surgical procedure is adequate exposure of the operating field. This allows the surgeon to have a good access to the tissues and enables him to handle the tissues/organs with care. A study has demonstrated that optimal exposure, which is safe and reliable, is a routine requirement for surgery¹, while another one stated that adequate exposure is paramount in abdominal surgeries².

A number of instruments have been fabricated to meet this need. Some are self-retaining¹ while others are not. In many hospitals in third world countries, instruments for surgical procedures are lacking. Instruments such as skin grafting knives, pneumatic tourniquet, and retaining retractors, both simple and self retaining, may be lacking. Where available, they are often old, worn out, and out of the reach of the clinics and hospitals in rural settings.

This study is therefore designed to use a Mayo towel clip as a self-retaining retractor especially in skin surgeries and some abdominal operations. When well handled, it could be used in place of a Joules self-retaining retraction in thyroidectomies.

This paper aims to highlight the use of Mayo towel clips in wound retraction.

TECHNIQUE/METHODOLOGY

The towel clips were applied to the skin and subcutaneous tissue as demonstrated in the diagram. The operating field

was cleaned with antiseptic solution and draped, while the area for incision was exposed. The incision was made and the skin was retracted with Mayo towel clips as shown in Fig. 1-4.

Figure 1

Fig. 1: Ongoing surgery

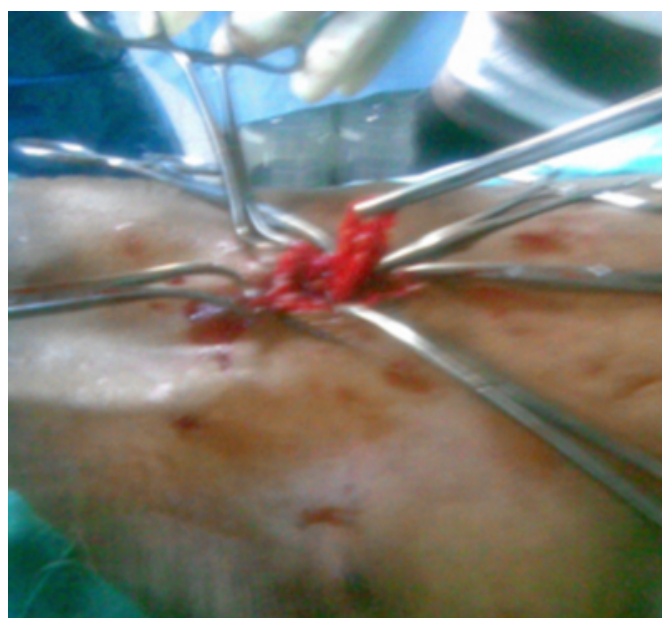


Figure 2

Fig. 2: Towel clip manipulated during surgery



Figure 3

Fig. 3: Towel clip as skin retractor



Figure 4

Fig. 4: Mayo towel clip used in surgery



DISCUSSION

Towel clips are instruments that have proved to be indispensable in surgeries.

One of their primary functions is to hold drapes in place³, to keep only the operating field exposed.

The basic towel clamp design includes locking handles and a tip, which may be curved or pointed, and may have teeth for traction. To use the towel clamp, someone opens the clamp, positions it where it is needed, and closes it again. The clamp will hold until someone releases it. The design of the clamp can vary slightly, depending on usage and manufacturer, but is generally easy to use.

Most common of them is the ordinary type, about 3.5 inches long with spring action; another is the Mayo towel clip³, which is about 5.5 inches long, with its tips designed to have firm grip on drapes, and has a ratchet for locking the box joint; others are the Backhaus towel clamps, smaller than Mayo's, although of the same design; furthermore there is the Moynihan's tetra towel clip, which has four teeth, used for toweling the sides of the incision to reduce the contamination risk further. Others⁸ are Bernhard, ball and socket, Doyen and Schaedel towel clips.

The Mayo towel clips are designed to hold sterile towels as close to the incision as possible. They are also used to fix suction tubes, diathermy wires and laparoscopic cables with the draping materials. Other uses include; cord-holding forceps (spermatic cord in hernia operation), tongue forceps to hold the tongue, and reduction of the depressed zygomatic arch fracture⁴. They are also useful in operations as listed below; retraction of skin and fascia/aponeurosis in herniorrhaphy, elevation of the rectus sheath⁵, thyroidectomies, exploration of a traumatic wound, and bone retraction in flail chest^{6,7}.

Contraindications to its use are; surgeries on liver, spleen or gall bladder; full urinary bladder and other viscera where there is a possibility of puncturing the organ which could lead to hemorrhage and leakage of contents contained in it. It should be used with care in infected abdominal surgeries such as typhoid perforation and intestinal obstructions.

The use of a towel clip as a retractor was an accidental finding. It was used during an operation in an obese patient who had a ruptured appendix. The only available Langenbeck retractor gave way as soon as the external oblique aponeurosis was being retracted. There was no option than to try the Mayo towel clip and it worked successfully and has been used in other operative procedures.

Its advantages include; less tissue trauma, assistant-surgeon

friendly, and gives good exposure. It is also cheap, available and effective.

Finally, it can be easily sterilized or autoclaved⁸.

Conclusion: Mayo towel clips can therefore be strongly recommended as skin retractors to allow for excellent exposure, which is one of the prerequisites for successful surgery.

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