ADHESIVE BAND FOR REPLACING CUTANEOUS STITCHING
8 Claims, 6 Drawing Figs.

ABSTRACT: An adhesive band has two longitudinal portions which are connected to each other by transverse elastic members of semi-circular cross-section. The elastic members are secured to the longitudinal portions with their convex surfaces in contact therewith, a rolled dressing being secured to one of the longitudinal portions.
ADHESIVE BAND FOR REPLACING CUTANEOUS STITCHING

BRIEF SUMMARY OF THE INVENTION

This invention relates to an adhesive band. The band, according to the invention, offers the possibility of bringing closely together, without the use of needles, sutures or metal clips, the edges of a wound resulting from injury or surgery, this effect being obtained by the connections of the band which hold together the two parts of the band.

More particularly, the band according to the invention comprises a pair of longitudinal portions, each adapted for being applied to the skin on a respective side of a wound, and elastic connections secured to the longitudinal portions to hold the edges of the wound in juxtaposition when the longitudinal portions are connected to the skin on the opposite sides of the wound. Additionally, a dressing can be attached to one of the portions for covering the wound if this is desired.

The advantage of the band according to the invention over conventional stitching consists in the painless and speedy use of the band without the need for needles, sutures or metal clips thereby avoiding scars caused by the stitches or clips. Moreover, the band according to the invention avoids the need of remove stitches or clips.

The whole process of closing a wound comprises the simple affixing of the band by its adherence to the skin following cleaning of the wound in accordance with surgical practice. A subsequent dressing or bandage is unnecessary and the band can be removed after a suitable time or it can be left in place until it automatically separates itself from the wound. By the use of this band, there is no need to use a plurality of sterile instruments, such as instrument sets, needles, needle holders, sutures, etc., for each injury. It also avoids the use of rolled bandages for additional dressing.

The positioning and securing of the band takes very little time so that a larger number of surgical procedures can be carried out in a given time span which is of obvious advantage in multiple or group accidents or catastrophes, and in military operations. The band can be used as a first dressing if the dimensions of the constituent parts are enlarged under condition of first using the customary swab or tampon in the wound. The use of this band saves not only time, but also dressing material.

In comparison with the conventional stitching, the biological value of the band is that the corresponding layers of the skin structure are brought into correct apposition as a consequence of which the residual scar is of minimal size in contrast to the conventional stitching wherein the underlying layers of the skin are brought to the surface thereby producing a larger scar.

Additionally, when performing a conventional closure, as a consequence of drawing the edges together, the deeper vessels are closed off thereby inhibiting or preventing normal circulation and trophic supply to the damaged tissue which by its very presence in the surface tissues acts as a foreign body.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1A is a perspective view of a portion of the band according to the invention from the outer surface thereof;

FIG. 1B is a perspective view similar to FIG. 1A of a modified version of the band;

FIG. 2A is a perspective view of the band of FIG. 1A from the inner surface thereof;

FIG. 2B is a perspective view of the band of FIG. 1B from the inner surface thereof;

FIG. 3 shows the band packaged as a dressing in a sterile container; and

FIG. 4 shows the band as applied to a wound.

DETAILED DESCRIPTION

The adhesive band illustrated in FIG. 1A consists of two longitudinal parts, 1a and 1b, which are mutually connected by the use of transverse elastic connections 2. These connections are of semi-circular cross-section, their convex surfaces being in contact with the longitudinal parts 1a and 1b. A rolled dressing of gauze or the like may be secured to one of the longitudinal parts. As shown for example in FIG. 1A, the dressing 3 is secured to part 1b which is somewhat wider than the part 1a.

In accordance with the modification illustrated in FIG. 1B, the transverse elastic connections 2 are connected to each other by longitudinal elastic strips 2a extending parallel to the longitudinal edges of the parts 1a and 1b of the adhesive band. The strips 2a are similarly of semi-circular cross-section with their convex surfaces secured to the longitudinal parts 1a and 1b.

The band is used in the following manner.

The longitudinal part 1b is secured adhesively to the skin along one edge of the wound, the skin having been previously cleaned, particularly by removal of any oily or fatty substance. The part 1b may be provided with an adhesive substance so that it can be directly secured to the skin. The other longitudinal part 1a is then securely held and stretched and applied, similarly, in stretched condition to the other edge of the wound. The two edges of the wound are brought together and held in juxtaposition and apposition by the elastic transverse connections 2. The rolled dressing 3 is then laid on top of the band and secured to the skin around the periphery of the complete dressing by applying adhesive strips 4 around the edges as indicated in FIG. 4.

The use of the dressing requires no particular skill, and can be applied quickly.

1. A band comprising first and second longitudinal portions each adapted for being applied to the skin on a respective side of a wound, and elastic means transversely connecting the longitudinal portions such that with the portions connected to the skin on the opposite sides of a wound, the elastic means serves to hold the edges of the wound in juxtaposition, said elastic means comprising a plurality of spaced transverse elastic members, and a longitudinal elastic member on each said longitudinal portion, the transverse elastic members being connected to each of the longitudinal elastic members.

2. A band as claimed in claim 1, wherein each said transverse elastic member has a semi-circular cross-section with a convex surface in contact with said longitudinal portions.

3. A band as claimed in claim 1 comprising dressing means secured to one of said portions for covering the portions when the latter are connected to the skin on opposite sides of the wound.

4. A band as claimed in claim 3, wherein said dressing means is a rolled dressing.

5. A band as claimed in claim 1, wherein said elastic members have semi-circular cross-sections with convex surfaces in contact with said longitudinal portions.

6. A band as claimed in claim 5, wherein said longitudinal portions have adjacent edges and the longitudinal elastic members extend parallel to said edges of the longitudinal portions in proximity therewith.

7. A band as claimed in claim 6, wherein said transverse elastic members have opposite ends secured to the longitudinal elastic members.

8. A band as claimed in claim 1, comprising adhesive means on the longitudinal portions for applying such portions to the skin on the opposite sides of a wound.