Comparison of fibrin glue and suture in the healing of teat incisions in lactating goats.

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Abstract:

The aims of this study were to investigate whether fibrin glue can be used to close experimentally induced incisions of the teat (mammary papillae) in lactating goats and to compare the healing of the glued with the sutured incisions. Four clinically healthy lactating dairy goats, namely 8 mammary papillae were used. After surgical preparation of the papillae, a 3.5 cm long incision of each papilla was made through skin, muscular layer and mucosa into the papillary sinus. The wounds in the right papillae in all goats were closed with U-shaped uninterrupted 00 chromic catgut sutures. The wounds in the left papillae in all goats were closed, using fibrin glue. One incision was seen to be dehisced and fistulous one day after in fibrin glued teats. The animals were slaughtered 8 days after surgical manipulation. The mammary papillae were removed and examined in the viewpoint on gross and microscopic findings. The healing of wounds was slower and feeble in glued mammary papillary incisions, however faster and stronger in sutured incisions on day 8 after operations. But, available outcomes like less tissue thickness and positive cosmetic results could be obtained by fibrin glue used on mammary papillary incisions, which are very important for teats to be milked by hand and milking machine. Results suggest that it is advisable to use only one or two simple interrupted sutures in teat incisions glued with fibrin to prevent the dehiscence but with a more reliable healing than the sutured incisions.