

The addition of antibiotics to fibrin glue.

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Abstract:

Fibrin glue is composed of two separate solutions of fibrinogen and thrombin. When mixed together, these two solutions mimic the final stages of the clotting cascade to form a fibrin clot. Because the resulting fibrin patch is a good medium for microbial growth, the addition of antibiotics to one of the components of fibrin glue has been shown to reduce postoperative infections. Seventeen different antibiotics have been investigated in vitro. Of the 17, cefotaxime, mezlocillin, gentamicin, neomycin, and polymixin B, when added to fibrin glue, can decrease the rate of clot formation or the strength of the resultant fibrin clot. Further work is necessary to characterize the effect the addition of antibiotics has on the rate and strength of fibrin clotting and to determine what effect low systemic levels of antibiotics might have on antibiotic resistance patterns.