

# **Quantification of leakage pressures after durotomy repairs in the canine.**

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Publication Date: 1990

## **Abstract:**

This study was undertaken to investigate the relative strengths of dural repair using standard suture techniques, suture supplemented with tissue adhesive, and tissue adhesive alone. Uniform 2 mm dural defects were created in adult beagles, repaired, and then subjected to pressurization testing. Defects repaired with suture alone initially leaked within the range of physiologic pressurization, while those supplemented with tissue adhesive or repaired with tissue adhesive alone failed at higher pressurization levels. Histologic sections obtained from the dura treated with fibrin adhesive sealant demonstrated minimal inflammatory response not significantly different than those sections examined at sites repaired by suture alone. A new substance, fibrin adhesive sealant, appears to be useful in effecting dural repair due to its ability to withstand pressures greater than those obtained with suture alone.