

Negative pressure therapy is effective to manage a variety of wounds in infants and children

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Negative pressure therapy (NPT) has been accepted as a valuable adjunct for wound closure in adults; however, reports on its effectiveness in young children and infants, including neonates, are limited. A retrospective chart review was conducted on children treated with NPT at a single institution between January 2003 and December 2005. Wound volumetric measurements were calculated at the start and end of therapy. Sixty-eight patients with 82 wounds were identified. The mean age was 8.5 years (range 7 days-18 years). Twenty patients (29%) were 2 years of age or younger, including eight neonates. Wound types included: pressure ulcers (n=13), extremity wounds (n=18), dehisced surgical wounds (n=19), open sternal wounds (n=10), wounds with fistulas (n=3), and complex abdominal wall defects (n=6). Low suction pressures (<100 mmHg) were generally used in children younger than 4 years of age. Following NPT, 93% of wounds decreased in volume. The average wound volume decrease was 80% ($p < 0.01$, $n = 56$). NPT can be effectively used to manage a variety of wounds in children and neonates. No major complications were identified in our retrospective review. Prospective studies are required to better refine the use of this technology in children.

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