

# **Reducing post-operative blood transfusion requirements by using fibrin glue (Tissee™) during calvarial remodelling for sagittal synostosis.**

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## **Abstract:**

**Introduction:** Calvarial remodelling for sagittal synostosis is extensive surgery and is associated with potential risks; the most significant being blood loss. **Aim** To study the effect scalp closure using fibrin glue (Tissee™) on post-operative bleeding and need for blood transfusion. **Patients and Methods:** We prospectively studied 16 patients undergoing calvarial remodelling by the same surgical team over a 12 month period. In the first 7 months no fibrin glue was used to close the scalp. In the last 5 months of the period fibrin glue (Tissee™) was used and six out of the sixteen patients had their wound closure assisted by this means. Data collected was age at surgery, the estimated perioperative blood loss, volume of blood transfused intraoperatively, volume drained in the first 8 hours post-operatively, total post-operative drainage and the volume of any post-operative blood transfusion required. **Results:** The two groups were comparable with a similar mean age at surgery, estimated peri-operative blood loss and intra-operative blood transfusion requirements. The volume drained in the first 8 hours post-operatively was 172 mls for those in whom glue was used compared to 246 mls where no glue was used ( $p=0.02$ ) and the total post-operative drain volume was 301 mls compared to 441 mls ( $p=0.01$ ) respectively. None out of the six patients treated with fibrin glue required postoperative transfusion compared to two out of ten in the untreated group. **Conclusion:** The use of fibrin glue has enabled us to reduce post-operative bleeding and the need for post-operative blood transfusion.