Sangustop®

YOUR CHOICE IN HEMOSTASIS
Based upon decades of experience in producing efficacious hemostats, B. Braun has developed a collagen hemostat: Sangustop®.

Sangustop® is specially indicated for local hemostasis of bleeding of parenchymal organs and diffuse oozing hemorrhages.

A new choice for bleeding treatment
- Efficient Hemostasis (1-4)
- Cost efficient (2)
- Absorbed in 3 weeks (5-7)
- Excellent biocompatibility (7)
- Can be easily used in open and minimally invasive surgery (3)
Sangustop® is made of high density bovine collagen fibres, which give the product a microporous structure.

Collagen is a well-known initiator of platelet aggregation and thus an accelerator of hemostasis (2-4).

Collagen is a biocompatible material that can be absorbed by the body within approximately 3 weeks as a result of phagocytosis and enzymatic degradation (5, 6).

**ESSCALIVER STUDY:**

Comparison of the efficacy and safety of Sangustop® as haemostatic agent versus a carrier-bound fibrin sealant during liver resection (TachoSil®) (3)

- Prospective, randomized, multicenter, non-inferiority study.
- Evaluation of the haemostatic effect (after 3, 5 and 10 minutes) and the safety of the collagen haemostatic agent Sangustop® compared to a carrier-bound fibrin sealant (TachoSil®) during liver resection.

N = 127 patients (62 Sangustop®, 65 TachoSil®)
EASY HANDLING

Effectiveness:
Percentage of patients (%) where haemostasis has been achieved

<table>
<thead>
<tr>
<th>Time to hemostasis (min)</th>
<th>COLL: Collagen based device (Sangustop®)</th>
<th>CBFS: Carrier bound fibrin sealant (TachoSil®)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 minutes</td>
<td>87%</td>
<td>87%</td>
</tr>
<tr>
<td>5 minutes</td>
<td>93%</td>
<td>90%</td>
</tr>
<tr>
<td>10 minutes</td>
<td>95%</td>
<td>95%</td>
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<tr>
<td></td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

Safety:
The rate of adverse events was comparable in both study arms. Concerning bile leakages and biliomas no significant differences between both treatment groups were determined.

Sangustop® has shown the same effectiveness and safety compared to the carrier-bound fibrin sealant (TachoSil®). In addition it is a cost-effective hemostat (2), that offers an easy handling in open surgery and MIS procedures (3).

Easy handling in Open and MIS surgery (3):
- Ready to use approach:
  no need for pretreatment steps
- Excellent adhesion to bleeding surfaces (2):
  just apply light pressure onto the wound
- Both sides equally active:
  simple positioning of the product
- Adaptable to any type of structure:
  from plain surfaces to anastomoses
- Very easy to use in minimal invasive surgery:
  Sangustop® maintains consistency after being introduced through the trocar
### Sizes and Art. No.

<table>
<thead>
<tr>
<th>Sizes</th>
<th>Art. No.</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 cm x 5 cm</td>
<td>1069400</td>
<td>1 piece</td>
</tr>
<tr>
<td></td>
<td>1069550</td>
<td>2 pieces</td>
</tr>
<tr>
<td></td>
<td>1069500</td>
<td>4 pieces</td>
</tr>
<tr>
<td>5 cm x 3 cm</td>
<td>1069600</td>
<td>4 pieces</td>
</tr>
</tbody>
</table>

### REFERENCES

5. [Data on file] Weber. Summary of animal studies to test three different hemostatic devices, which are used to stop severe liver bleeding (2006).