Experimental *in-vivo* examination of hemostasis using infrared-contact-coagulation in canine brain

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**Purpose:** Without any treatment parenchymatous bleedings after operative or traumatic brain injuries can cause intracranial pressure and neurological deficits. A safe intraoperative hemostasis is consequently one of the most important requirements for a good outcome. The infrared-contact-coagulation has proved to be a quick and safe method for hemostasis. It has been applied mainly for bloodstanching of parenchymatous organs as kidney, lung, liver and spleen but also during ENT-operations.

**Method:** The Infrared-Contact-Coagulator LC-250 was applied for local infrared light coagulation of the canine brain in 20 cases of parenchymatous bleeding caused artificially by an Ultrasonic-Surgical-Aspirator. Postoperative observations were carried out until the 8th postoperative week, followed by histologic investigations.

**Results:** Infrared-contact-coagulation has shown to be a quick and successful method of local hemostasis on canine brain parenchyma. Histological examination revealed superficial scar formation with a clear and sharp border towards brain tissue.

**Conclusions:** Due to our observations, Infrared-contact coagulation can be highly recommended for the application in brain surgery to obtain quick and lasting hemostasis in any kind of parenchymatous bleeding during surgery.