Boston Scientific
MICROVASIVE

Guidelines Bipolar Hemostasis

CURE Hemostasis Research Group – Colonoscopic Technical Parameters for Bipolar Electrocoagulation of Bleeding Colonic Lesions							
	ANGIOMA OR RADIATION TELANGIECTASIA		POLYP STALK	FOCAL ULCER	DIVERTICULOSIS		CANCER
Bipolar Coagulation (Gold Probe)	Active Bleeding	Non Bleeding	Active Bleeding	Active Bleeding	Active Bleeding	Non – Bleeding visible vessel (VV)	Active Bleeding
Probe Size (2,3)	Large	Large or Small	Large	Large	Large	Large	Large
Pressure (4)	Light	Light	Moderate	Moderate	Moderate	Moderate	Moderate
Power Setting (1) (Watts)	10 – 15	10 - 15	15 - 20	15 - 20	15 - 20	15 - 20	15 - 20
Pulse Duration (sec)	1	1	1 -2	1 -2	1 -2	1 -2	1 -2
Endpoint (5)	Bleeding Stops	White Coagulum	Bleeding Stops	Bleeding Stops	Bleeding Stops	Flatten VV	Bleeding Stops

(1) These are general guidelines which were developed from laboratory and clinical prospective studies. Power, pressure and pulse duration should be reduced for small or deep colonic lesions. Repeated coagulation on the same point of a flat lesion such as an angioma will cause transmural coagulation and increase the risk of perforation. We recommend checking probes for heating or coagulation prior to endoscopic application

(2) Small diameter colonoscopes with a large diameter suction channel (3.7 – 3.8 mm) are recommended for all colonoscopies on patients with severe lower GI hemmorhage. These facilitate suctioning and allow the endoscopist to pass a large diameter coagulation probe (3.2 mm). Large diameter probes are recommended for treatment of all actively bleeding lesions and for treatment of angioma or radiation telangiectasia

(3) Small diameter thermal probes (2.4 mm) have less washing capacity, less volume of coagulation and are more likely to bend with passage through a colonoscope. Thes are recommended for coagulation of small angiomata or radiation telangiectasia.

(4) Pressure can be exerted en face or tangentially directly on the bleeding or non-bleeding lesion. In the colon, firm tamponade with the coagulation probes and colonic distension should be avoided, because these will increase the risk of complications related to transmural coagulation.

(5) The endpoint for actively bleeding lesions is acute hemostasis. However, repeated coagulation to the same point to control oozing from angiomas and to achieve a totally dry field may be unnecessary and will increase the risk of transmural injury.

CURE Settings and Guidelines for Ulcer, Dieulafoy's Lesion and Mallory Weiss Tear Treatment*					
	PEPTIC ULCER		DIEULAFOY'S LESION		MALLORY WEISS TEAR
Bipolar Coagulation (Gold Probe)	Active Bleeding	Non Bleeding Vissible Vessel	Active Bleeding	Non Bleeding Vissible Vessel	Active Bleeding
Probe Size ††	Large	Large	Large	Large	Large or Small
Pressure §	Very Firm	Very Firm	Firm	Firm	Moderate
Power Setting (Watts)	20	20	20	20	20
Pulse Duration (sec)	10	10	10	10	4
Endpoint	Bleeding Stops	Vissible Vessel flat and white	Bleeding Stops flat and white	Vissible Vessel flat and white	Bleeding Stops flat and white

• These are general guidelines that have been standardized from CURE laboratory and randomized endoscopic studies. Power, pressure and power settings must be reduced for small, acute or very deep upper GI bleeding lesions. The CURE Hemostasis Research Group recommends checking probes prior to endoscopic application and resuscitation of the patient before and during endoscopy. Surgical consultation on all patients with severe upper GI hemorrhage is recommended before endoscopic coagulation. If endoscopic therapy fails to control active bleeding or prevent rebleeding, continues resuscitation of the patient and GI surgery are recommended.

† Single or double large-channel endoscopes are recommended for all emergency endoscopies for severe upper GI hemorrhage. Large diameter thermal probes (3.2 mm) are recommended for all nonvariceal bleeding lesions or nonbleeding visible vessel except for small arteries (spurts) in Mallory Weiss tears (<0.5 mm in diameter)

† Small endoscopic thermal probes (2.4 mm) have less tamponade capability, washing capacity and volume of coagulation than large probes and are only recommended with coagulation through large-channel endoscopes for small Malllory Weiss tear spurts.

§ Pressure refers to the tamponade pressure exerted en face or tangentially by way of the contact probe, directly on the bleeding lesion or nonbleeding visible vessel. Sufficient pressure to stop the bleeding before coagulation is recommended for those with active bleeding.

** **Guidelines compliments of Dennis Jensen, M.D., CURE Hemostasis Research Group.**