

Principles of electrosurgery during laparoscopic surgery

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Inadvertent electrosurgical injuries during minimal access surgery are potentially serious and are often unrecognised at the time. The vast majority occur following the use of monopolar diathermy . For conventional laparoscopy , the overall incidence is thought to be between one and two cases per 1000 operations. Injuries can occur through inadvertent touching or grasping of tissue during current application; direct coupling between tissue and a metal instrument that is touching the activated probe; insulation breaks in the laparoscopic or robotic instruments; direct sparking from the diathermy probe; or current Bipolar diathermy is safer and should be used in preference to monopolar diathermy , especially in anatomically crowded - areas. If monopolar diathermy is to be used, important safety measures include attainment of a perfect visual image, avoid - ing excessive current application and meticulous attention to insulation. Alternative methods of performing dissection, such as the use of ultrasonic devices, may improve safety .

Figure 10.5 Management of bleeding from a surgical trocar site.

Revision #1

Created 2025-12-31 15:08:05 UTC by Omar Ayman

Updated 2025-12-31 15:08:05 UTC by Omar Ayman