

Ott DE, Reich H, Love B, McCorvey R, Toledo A, Liu CY, Syed R, Kumar K. Reduction of laparoscopic induced hypothermia, post operation pain and recovery room length of stay by pre-conditioning gas with the Insuflow device: A prospective randomized controlled multi-center study. *JSLS* 1998; 2: 321-329

LINK - <https://www.ncbi.nlm.nih.gov/pubmed/10036122>

Abstract

OBJECTIVE:

To assess the efficacy and safety of Insuflow (Georgia BioMedical, Inc.) filter heater hydrator device in reducing the incidence, severity and extent of hypothermia, length of recovery room stay and postoperative pain at the time of laparoscopy.

DESIGN:

Prospective, randomized, blinded, controlled multi-center study. Patients underwent gynecologic procedures via laparoscopy; surgeons, anesthesiologists and recovery room personnel assessed the results.

SETTING:

Seven North American institutions.

PATIENTS:

Seventy-two women for safety evaluation and efficacy studies.

INTERVENTIONS:

Intraoperative pre-conditioning of laparoscopic gas with the Insuflow device (treatment) or standard raw gas (control) during laparoscopic surgery and postoperatively.

MAIN OUTCOME MEASURES:

Incidence, severity and extent of hypothermia, postoperative pain perception and length of recovery room stay.

RESULTS:

The Insuflow group had significantly less intraoperative hypothermia, reduced length of recovery room stay and reduced postoperative pain. Pre-conditioning of laparoscopic gas by filtering heating and hydrating was well tolerated with no adverse effects. The safety profile of the Insuflow pre-conditioned gas showed significant benefits compared to currently used raw gas.

CONCLUSIONS:

Pre-conditioning laparoscopic gas by filtering heating and hydrating with the Insuflow device was significantly more effective than the currently used standard raw gas and was safe in reducing or eliminating laparoscopic-induced hypothermia, shortening recovery room length of stay and reducing postoperative pain.