



Prof Mais Valerio

Division of Gynecology, Obstetrics and Pathophysiology of Human Reproduction, Department of Surgery, Maternal–Fetal Medicine and Imaging, University of Cagliari Ospedale S. Giovanni di Dio, Via Ospedale 46 9124Cagliari Italy 39070652797 39070668575 gineca.vmais@tiscali.it

Topic : Adhesion Prevention

Authors and addresses : Valerio Mais, Maria Giuseppina Cirronis, Michele Peiretti, Ester Cossu, Gian Benedetto Melis

Division of Gynecology, Obstetrics and Pathophysiology of Human Reproduction, Department of Surgery, Maternal–Fetal Medicine and Imaging, University of Cagliari, Ospedale S. Giovanni di Dio, Via Ospedale 46, 09124 Cagliari, Italy

Presenting Authors : Valerio Mais

Hyalobarrier® for Preventing Postoperative Adhesions: Systematic Review and Meta-analysis of Randomized Controlled Trials.

Among site-specific barriers used as adhesion prevention agents, there is evidence that a hyaluronan gel, Hyalobarrier®, made of ACP200®, an auto-crosslinked ester of hyaluronic acid without any foreign bridge molecules, may decrease the prevalence of postoperative adhesions in humans. This study is a meta-analysis of the available clinical evidence.

All clinical trials with Hyalobarrier® as adhesion reduction agent were searched and reviewed. Five randomized controlled trials (RCTs) met the inclusion criteria. Presence of adhesions at second-look was the outcome measure. Meta-analysis was performed using the surgery type as moderator. The effect measures were expressed as odds ratios (ORs) with 95% confidence intervals (CIs) and $p < 0.05$ was considered as statistically significant. Fixed effects model was used. Analysis was performed by using Comprehensive Meta Analysis software, version 2 (BIOSTAT, 14 North Dean Street, Englewood, NJ 07631).

Two RCTs were performed in laparoscopy ($n=79$) and 3 in hysteroscopy ($n=256$). When outcomes for overall 335 patients were examined, the presence of adhesions at second look was significantly lower in patients treated with Hyalobarrier® than in controls (OR=0.350; 95% CI=0.208-0.589; Z-value = -3.952, $p < 0.001$). Statistics of fixed effects analysis by surgery type demonstrated a significantly lower incidence of adhesions at second look in patients treated with Hyalobarrier® than in controls in both endoscopic surgery types: OR was 0.408 (95% CI = 0.217-0.766; $p=0.005$) in hysteroscopy and 0.248 (95% CI = 0.098-0.628; $p=0.003$) in laparoscopy.

This systematic review and meta-analysis showed that Hyalobarrier® could decrease the presence of postoperative adhesions after gynecological endoscopic surgery.