

# Effectiveness of antiadhesion barriers in preventing adhesion after myomectomy in patients with uterine leiomyoma.

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## Abstract:

Background: Myomectomy often causes adhesion formation and decreases subsequent fertility. The purpose of the present study was to evaluate the effectiveness of several antiadhesion barrier materials in preventing adhesion after myomectomy. Methods: We prospectively classified 63 women undergoing myomectomy alone into four groups according to the type of antiadhesion material used: Hyaluronic acid-carboxymethylcellulose film (Seprafilm<sup>®</sup>) (n = 21, Group 1), Dextran 40 (10% Dextran 40 Low Injection<sup>®</sup>) (n = 17, Group 2), factor 13 with fibrinogen (Beriplast<sup>®</sup>) (n = 12, Group 3) and control (n = 13, Group 4). We performed early second-look laparoscopy after the seventh post-operative day in all patients and examined adhesion formation in the abdominal cavity. The incidence of adnexal adhesions was evaluated according to the American Fertility Association (AFS) adhesion score. Results: The incidence of uterine adhesion was 14.3% in Group 1, 70.6% in Group 2, 75.0% in Group 3 and 76.9% in Group 4. Adhesion formation in Group 1 was significantly less than that in Group 2 (p = 0.0004), Group 3 (p = 0.0005) and Group 4 (p = 0.0003). The incidence of peritoneal adhesion was 14.3% in Group 1, 29.4% in Group 2, 41.6% in Group 3 and 69.2% in Group 4. Adhesion formation in Group 1 was significantly less than that in Group 4 (p = 0.001). AFS scores in Groups 1-4 were 0.38 +/- 1.02, 4.58 +/- 7.02, 0.83 +/- 1.99 and 8.53 +/- 8.79 (mean +/- S.D.), respectively. Group 1 had the lowest AFS score and the difference between Group 1 and Group 4 was significant (p < 0.0001). The AFS score in Group 3 was also significantly less than that of Group 4 (p = 0.0009). Conclusion:

Seprafilm<sup><sup></sup></sup> was highly effective and was superior to the other antiadhesion materials tested in preventing uterine adhesions after myomectomy. © 2005 Elsevier Ireland Ltd. All rights reserved.