Micropapillary pattern in serous borderline ovarian tumors: does it matter?

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목적: To evaluate the clinical and prognostic impact of micropapillary pattern in patients with serous borderline ovarian tumors (SBOT).

방법: We retrospectively assessed 130 consecutive patients with typical (n=97, 74.6%) or micropapillary (n=33, 25.4%) SBOT. Clinicopathologic factors and outcomes were compared between these two groups.

결과: There were no significant between-group differences in age, menopausal status, parity, body mass index, cancer antigen 125 concentration, tumor size, tumor rupture, positive cytology, ovarian surface involvement, retrieved lymph nodes, use of laparoscopy, fertility-sparing and ovary-sparing procedures, complete staging and restaging, and adjuvant chemotherapy. However, the incidences of advanced stage (II-III) tumors (10.3% vs 36.4%, p=0.001), microinvasion (2.1% vs 15.2%, p=0.012), peritoneal implants (8.3% vs 33.4%, p<0.001), and lymph node involvement (0% vs 21.2%, p<0.001) were significantly higher in patients with micropapillary than with typical SBOT. Five patients with typical (5.2%) and three with micropapillary (9.1%) SBOT had recurrent disease (p=0.418), and one patient (3%) in micropapillary SBOT group died due to the disease (p=0.254). The 5-year disease-free survival (DFS) rates for patients with typical and micropapillary SBOT were 96% and 86%, respectively (p=0.148). All three patients with micropapillary SBOT who had recurrence had peritoneal implants (one noninvasive and two invasive). Multivariate analysis showed that peritoneal implant was the only significant factor related to DFS (p=0.002).

결론: Because micropapillary SBOT was significantly associated with peritoneal implants, especially invasive implants, and lymph node involvement, complete staging procedures, including lymph node dissection, are recommended. However, micropapillary SBOT itself was not significantly associated with DFS. Peritoneal implant was the only factor independently associated with tumor recurrence.

Therapeutic efficacy of oral paclitaxel (DHP107) in an orthotopic mouse model of ovarian cancer

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목적: Paclitaxel has been used as a chemotherapeutic agent against a variety of cancers in clinical treatment. Recently, clinical mucocadhesive lipid-based oral paclitaxel formulation (DHP107) was newly developed. Here, we designed to compare the in vivo anti-tumor efficacy of DHP107 with traditional IV Paclitaxel using an orthotopic mouse model of chemotherapy-sensitive SKOV3ip1 ovarian cancer.

방법: To determine the therapeutic dose of DHP107, DHP107 was administered p.o. at dose of 0, 25, and 50 mg/kg twice a week to female athymic nude mice. Paclitaxel IP injections at traditional dose of 5 mg/kg were used as controls. The significant tumor weight reductions were observed in mice with DHP107 p.o. administration at dose of 25 mg/kg (p<0.01) and 50 mg/kg (p<0.01) relative to vehicle-treated controls. DHP 25mg/kg twice a week was selected as a therapeutic dose. To evaluate further the potential therapeutic effect of DHP107 metronomic chemotherapy, mice were administrated with DHP107 p.o at dose of 0, 25 mg/kg twice a week or 50 mg/kg once a week.

결과: DHP107 administration at low dose (25 mg/kg, tumor weight reduction by 88%, p<0.01) twice a week was effective as a therapeutic schedule in inhibiting tumor growth compared with administration at high dose DHP107 (50 mg/kg, by 36%, p=0.2) and IP Paclitaxel (5mg/kg, by 82%, p=0.01) once a week.

결론: In conclusion, our results define the in vivo anti-tumor efficacy by metronomic oral chemotherapy of DHP107 for alternative systemic administration of paclitaxel.