Clinical observational study of conformal radiotherapy combined with topotecan chemotherapy in patients with platinum-resistant recurrent ovarian cancer

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ABSTRACT. This retrospective study aimed to observe the curative effect and adverse reactions of three-dimensional conformal radiotherapy combined with topotecan chemotherapy in patients with platinum-resistant recurrent epithelial ovarian carcinoma. The chemoradiotherapy group (N = 22) received 15 mv X-rays with 1.8 to 2.0 Gy/f/d radiation, 5 times per week. The total dose was 45 to 65 Gy; the median dose was 52.5 Gy. Topotecan chemotherapy (2.0 mg/m²) was administered after the first week of radiotherapy.
on days 1, 8, and 15; it was repeated every 28 days. The only chemotherapy group (N = 20) received topotecan chemotherapy (4.0 mg/m²) in the first week, and the dose was administered on days 1, 8, and 15; it was repeated every 28 days. The median follow-up times were 18.5 months (2 to 37.7) and 10.8 months (1.5 to 29.6) in the chemoradiotherapy and in the only chemotherapy groups, respectively. The total response rates were 42.1% (8/19) and 11.1% (2/18), respectively. The clinical benefit rates were 68.4% (13/19) and 22.2% (4/18), respectively, with significant difference (P < 0.05). The median disease progression-free periods were 9.8 and 6.6 months, respectively, with significant difference (P < 0.001). The median survival times were 19.7 and 12.5 months, respectively, with significant difference (P < 0.05). The degrees of digestive tract reaction rates were 26.3% (5/19) and 16.7% (3/18), whereas the hematology toxicity rates were 21.1% (4/19) and 22.2% (4/18), respectively, with no significant difference (P > 0.05). As three-dimensional conformal radiotherapy combined with topotecan chemotherapy had good curative effect on platinum-resistant recurrent epithelial ovarian cancer, with mild adverse reactions, this technique can be used as a remedial measure.

**Keywords:** Recurrent epithelial ovarian carcinoma; Platinum resistance; Three-dimensional conformal radiotherapy; Topotecan chemotherapy; Curative effect