Palliative cytostatic treatment of cervical carcinoma

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Summary

Purpose of the article: In patients recurring after primary therapy for cervical cancer, treatment remains palliative. In the present article we focus on treatment results with single cytostatic drugs or combinations in randomized trials in squamous cell cervical cancer.

Results: In one randomized trial, monotherapy with platinum analogues lead to overall remission rates between 11% and 15% only. The median overall survival ranged between 5.6 and 6.5 months. Various combinations lead to overall remission rates between 21% and 31% and the median overall survival ranged between 7.3 and 14.3 months. The most active combinations were cisplatin/bleomycin/mitomycin C/vindesine, cisplatin/paclitaxel, and cisplatin/irinotecan. There are several smaller studies with cytostatic therapy in cervical adenocarcinoma. However, using 5-fluoruracil, ifosfamide, paclitaxel, or cisplatinum, only response rates between 15 and 30% can be achieved. Predictors of a favorable chemotherapy response include a higher performance status, higher age, extrapelvic recurrence sites (especially lung metastases), a recurrence-free interval > 1 year, and no previous radiotherapy and chemotherapy.

Conclusion: In conclusion, palliative cytostatic therapy with single agents has moderate activity. Combinations are more active but also more toxic. In general, chemotherapy needs to be used earlier in the course of disease when tissue vascularization is preserved.

Key words: Cytostatic therapy; Cervical cancer; Palliative chemotherapy.

Introduction

The primary treatment of cervical carcinoma is either radical surgery or primary definitive chemo-radiotherapy. In the case of a relapse, treatment is only palliative. The use of cytostatic treatment is limited by several factors. Patients often have received radiotherapy and responses of recurrences in the radiotherapy field are rare. If advanced disease is present, renal function is often impaired. In several patients, the placement of a nephrostomy or ureteral stents is necessary in order to improve or maintain renal function. In the present article we review treatment results with single cytostatic drugs or combinations in randomized trials.

Results

The key efficacy and toxicity data of randomized trials investigating cytostatic treatment with a single agent or drug combinations in squamous cell carcinomas is listed in Tables 1 and 2. In addition, several phase II studies revealed favorable remission rates around 50 or 60%. Most of these have included cisplatin, ifosfamide and paclitaxel in various combinations.

There are several smaller studies with cytostatic therapy in cervical adenocarcinoma. However, in most studies with 5-fluoruracil, ifosfamide, paclitaxel, or cisplatinum only response rates between 15 and 30% have been achieved.

Predictors of a favorable chemotherapy response include a higher performance status, higher age, extrapelvic recurrence sites (especially lung metastases), a recurrence-free interval > 1 year, and no previous radiotherapy and chemotherapy.

Discussion/Conclusion

Palliative cytostatic therapy with single agents has moderate activity. Combinations are more active but also more toxic. In general, chemotherapy needs to be used earlier in the course of disease when tissue vascularization is preserved.

Table 1. — *Key efficacy and toxicity data of one randomized trial in cytostatic monotherapy of squamous cell cervical carcinoma.*

Drug	No. of patients	CR + PR	CR	Median overall survival	Toxicity	Authors
Carboplatin	294 (total)	15%	6%	6.5 months	Iproplatin was significantly more toxic: thrombocytopenia, gastro-intestinal	McGuire *et al.*, *J. Clin. Oncol.*, 1989
Iproplatin		11%	4%	5.6 months		

Table 2. — *Key efficacy and toxicity data of five randomized trials in cytostatic combination therapy of squamous cell cervical carcinoma.*

Drug	No. of patients	CR + PR	Median progression-free survival	Median overall survival	Toxicity	Authors
1. Cisplatin/ ifosfamide	454 (total)	31%	4.6 months	8.3 months	Cisplatin/ifosfamide was significantly more toxic: neutropenia, nephrotoxicity, peripheral and central neuro-toxicity increased	Omura *et al.* *J. Clin. Oncol.*, 1997
Cisplatin/ mitolactol		21%	3.2 months	7.3 months		
Cisplatin		18%	3.2 months	8.0 months		
2. Cisplatin/ ifosfamide/ bleomycin	303 (total)	31%	5.1 months	8.4 months	Main toxicities: myelosuppression, nausea, vomiting	Bloss *et al.* *J. Clin. Oncol.*, 2002
Cisplatin/ ifosfamide		32%	4.6 months	8.5 months		
3. Cisplatin/ paclitaxel	264 (total)	36%	4.8 months	9.7 months	Combination arm: significantly more G3-4 neutropenia, anemia	Moore *et al.* *Proc. ASCO*, 2001
Cisplatin		19%	2.8 months	8.8 months		
4. Cisplatin/ bleomycin/ mitomycin C/ vindesine	251 (total)	42% (11% CR)	5.3 months	10.1 months	Combination arm: significantly more G3-4 hemato-toxicity and gastrointestinal toxicity	Vermorken *et al.* *Ann. Oncol.*, 2001
Cisplatin		25% (7% CR)	4.5 months	9.3 months		
5. Cisplatin/ irinotecan	110 (total)	37%	6.9 months	14.3 months	Cisplatin/irinotecan: 81% G3-4 neutropenia, 19% G3-4 diarrhea	Garin *et al.* *Proc. ASCO*, 2001
Irinotecan		13%	2.7 months	8.0 months		
Cisplatin		19%	4.1 months	9.6 months		

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