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## Treatment of recurrent and/or metastatic adeno-carcinoma of the endometrium with cisplatinum and vinorel-bine: A phase II study

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Purpose: Treatment of advanced endometrial adenocarcinoma (AEC) is still largely unsatisfactory. Since the new semisynthetic vinca alkaloid vinorel-bine (VNR) has been shown to be very active against several neoplasms, a phase II trial of VNR in combination with cisplatinum (CDDP) has been carried out.

Methods: Thirty pts received CDDP 80 mg/m2 i.v. with a standard hydration protocol on day 1 plus VNR 25 mg/m2 i.v. bolus on day 1 + 8 every 21 days. Median age of enrolled pts was 62 years, while mean PS (KI) was 85. Most pts had previous surgery, 12 had RT, but none had received chemotherapy. After 3 cycles pts were restaged for assessment of objective response according to the WHO criteria.

Results: No patient was excluded from result analysis. Two patients achieved CR (7%) with a median duration of 11+ mos. A PR was seen in 16 cases (53%) with a median duration of 8.2 mos, for an overall response rate of 62%. SD was observed in 5 pts (17%) with a median duration of 5.0+ mos, while PD was seen in the remaining 7 cases.

Conclusion: The combination of CDDP and VNR is quite effective in AEC in terms of objective response rate, with acceptable toxicity.

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#### The Vienna experience with primary and adjuvant irradiation of sarcoma of the corpus uteri

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The value of radiotherapy in the treatment of sarcoma of the corpus uteri is still not clear. Most reports in literature are based on small patient groups treated over a long time period with changing treatment techniques. Between 1981 and 1993 87 patients (34 with leiomyosarcoma, 13 with endometrial stromal sarcoma, 36 with mixed mullerian tumors and 4 with different histologies) were treated with radiotherapy at the University of Vienna. Age distribution ranged from 32 until 88 years, mean age was 63 years. There were 44 patients in stage I, 10 in stage II, 24 in stage III and 9 in stage IV. 15 patients with advanced tumors received radiotherapy alone, 72 were irradiated postoperatively. 18 patients were treated with brachytherapy alone, 21 with external beam therapy alone and 48 with a combination of both modalities.

After a mean follow-up of 47 months the actuarial 5-year disease specific survival for all patients was 57.7%, with leiomyosarcomas 54.8%, with endometrial stromal sarcomas 80.7% and with mixed mullerian 49.1%. Disease-specific-survival in stage I was 75.9%, in stage II 60.0%, in stage III 41.8% and in stage IV 11.1%. Ten patients showed progressive disease, of the other 77 patients 19 developed a recurrence (local recurrence only with 3 patients, distant metastases only with 9 patients, locoregional and distant recurrences with 7 patients) after 4–65 months (median 12 months). The actuarial recurrence free survival at 5 years was 72.5%, actuarial local control was 83.1%.

In our experience with patients with sarcoma of the corpus uteri treated with a curative intent by surgery and adjuvant radiotherapy excellent local control rates can be achieved. The poor overall and disease specific survival rates are caused by a high proportion of advanced tumors and by frequent development of distant metastases even in earlier stages.

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### HDR-brachytherapy is an effective treatment modality in primary treatment of inoperable patients with endometrial carcinoma

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In order to evaluate the efficacy of HDR brachytherapy in the primary treatment of endometrial carcinoma the results of 12 years of experience (1981–1992) covering 280 patients with a mean follow-up of 55 months (median 40 months) will be reported.

Age distribution ranged from 46 until 95 years, mean age was 72 year (median: 73 years). Staging was based on clinical examination and fraction-

ated currettage. There were 116 patients in clinical stage Ia. 199 in stage Ib. 37 in stage II and 8 in stage II. brachytherapy was performed 4 to 5 times (8.5 Gy at 2 cm lateral the tip of the applicator) with a one-channel intracavitary applicator and 1 to 2 times (7 Gy at 7.5 mm lateral from the applicator surface) with an intravaginal cylinder-applicator.

At five years overall-survival, disease specific survival and local control was 52.7%/76.6%/75.4%, in stage la 63.9%/84.9%/86.0%, in stage lb 47.3%/73.3%/68.6%/69.5%, according to histopathologic grade 1.65, 1%/83.5%/77.7%, grade 2: 44.7%/75.4%/75.8% and grade 3: 37.7%/63.9%/74.1%. Eight patients showed progressive disease, 64 patients developed a recurrence after a median of 13 months, 45 of those a local recurrence only, 6 a local recurrence with distant metastases, 6 a lymph node recurrence only and 7 patients distant metastases only. There were 3.2% late side effects at the bladder (2.1%mild, 0.7% moderate, 0.4% severe), 12.1% at the rectum (7.9%mild, 3.8% moderate, 0.4% severe).

At stages Ia, Ib, and II in endometrial carcinoma HDR-brachytherapy is a very effective treatment modality with acceptable local control rates and disease specific survival for those patients who are not fit for surgery. During the time frame of 12 years and on 280 patients the method has proven to have a low risk of acute complications and an acceptable risk of long term

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# RBC flux of the portio uteri & cervical carcinoma – The in vivo use of colposcopy directed laser doppler fluxmetry (LDF)

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Purpose: It is well established that tumor microcirculation play a important role in tumor growth & metastasis but also in cancer radio/chemotherapy or hyperthermia. The objective of this study was to apply LDF, which allows the direct and noninvasive measurement of RBC (Red Blood Cells) flux on patients with normal cervix (NC), carcinoma in situ (CIS) and cancer (CC)

Methods: Measurement of cervix blood flux were performed using the 2-channel LDF-Monitor DRT4 (2 mW, wavelenght 780nm, solid state laser diode) & a Leisegang colposcopy. 13 patients with histological verified squamous cell CC (Staging: 6 FIGO IA2-IB, 5 FIGO IIA-IIB, 3 FIGO IIIA-IIIB, 1 FIGO IVB), 10 with CIS and 15 patients NC were entered in this study.

Results: The mean RBC flux of patients with normal portio uter was 228.3 AU (AU, arbitrary units, SD 55.1 AU), in CIS 259.5 (SD 87.3 AU) and in CC 280.5 AU (SD 79.4 AU). Analysis of cervix flux motion revealed three main frequency components: low frequency oscillations, high frequency waves and pulsatile waves (PW).

Conclusions: The present study shows differences in colposcopy directed noninvasive RBC flux monitoring of the cytologic/colposcopic normal portio uteri and dysplasia or cervical cancer.

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# Results of the combined external- and Ir<sup>192</sup> HDR-afterloading radiotherapy of cervical and endometrial cancer using an Individual middle-block technique

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Between 1991 and 1994 81 patients (pts.) have been treated with inoperable cervical or endometrial cancer stage I–IV by combined tele- and brachytherapy at the Kiel University. The treatment schedule started with 6 brachytherapy (BT) fractions, 7 Gy each, in weekly interval. The external beam radiation (EBRT) was integrated after the third BT fraction conventional fractionated. After completing the BT, at 25 Gy EBRT an individual satellite was constructed according to the cumulated BT reference isodose line. Treatment outcome and complication rates were analysed.

In this retrospective analysis files of pts. with T 1b-4 N 0–3 M 0 cancer, without treatment modifications were considered. We could obtain data for 45 out of 81 cases, 4 pts. were lost for follow-up. 34 out of 41 pts. had squamous cell carcinoma of the cervix with the stages 12  $\times$  Illb, 3  $\times$  Illa, 15  $\times$  Ilb, 1  $\times$  Ila and 3  $\times$  IV. 7 out of 41 pts. had adenocarcinoma of the endometrium with stages 2  $\times$  Ib, 1  $\times$  Ila, 2  $\times$  Ilb and 2  $\times$  Ilb respectively. Follow-up ranged from 1 to 59 month (median 26 month) for cervical carcinoma and from 15 to 56 month (median 40 month) for