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Surgery in pelvic relapses of gynaecological cancer

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Surgery plays an important role in isolated pelvic relapse of cervical, endometrial and ovarian carcinomas, and in some (low grade) gynaecological sarcomas.
Cervical and endometrial pelvic relapses are usually first irradiated. Pelvic exenteration is often the only curative treatment modality in patients with isolated pelvic relapse following pelvic radiotherapy. New surgical techniques such as the colon pouch and continent urinary conduits have changed the quality of life of these patients substantially. In some instances partial bladder reconstruction with reconstruction with small bowel flaps makes it possible to offer the patient exenterative surgery without ileal conduit. In patients with irradiated pelvic relapse, exenteration combined with additional radiotherapy (e.g. brachytherapy or intraoperative radiotherapy) is sometimes an option.
Also in pelvic relapses of ovarian cancer are candidates for secondary surgery. Besides the presence of an isolated pelvic relapse other prognostic factors are important to consider surgery in ovarian cancer: young age, absence of extra-abdominal or liver metastases at primary diagnosis, complete response after first-line therapy, long treatment-free interval after primary treatment, absence of ascites or peritoneal carcinomatosis, and good general condition. Performing an (open) laparoscopy is often helpful in the selection of the patients for secondary surgery.
Pelvic relapse of (low grade) gynaecological sarcomas (e.g. endometrial stromal sarcoma) are often good candidates for surgery as they are often slowly growing and distant (hematogenous) spread at the time of relapse.

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Pelvic relapses in gynaecology: radiotherapy options

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The most common gynaecological malignancies relapsing in the pelvis are cervix and endometrium cancer. For deciding the appropriate treatment strategy the following information is essential: tumour location, size, and topography, previous treatment and exclusion of distant disease. The recurrence may be in the central pelvis (vagina, cervix, uterus) or at the pelvic side wall. It can be either superficial or deeply invading. In advanced and high risk disease there is significant risk for distant metastasis and therefore a poor overall prognosis. Previous treatment is either surgical with or without adjuvant radiotherapy or exclusive radiotherapy most often combining external beam radiotherapy (EBRT) and brachytherapy (BT).
Curative treatment of relapses using definitive radiotherapy or combined surgery and radiotherapy is indicated in not previously irradiated patients with favourable location and topography and limited size (<5 cm). Exceptions are patients treated postoperatively with vaginal vault brachytherapy alone and patients with small localised recurrences in the distal vagina who had received before EBRT and BT in the proximal vagina only. Central recurrences in the vagina (proximal, middle or distal third) can be treated with combined EBRT up to 45–50 Gy followed by BT. The brachytherapy technique depends on the EBRT response using either an endovaginal approach for superficially located tumours and tumours with good response or combined endovaginal and interstitial treatment for deeply invading and bad responding tumours. The aim is to apply additional 40 Gy using either High dose rate or Pulse dose rate brachytherapy.
Central recurrences in the cervix and/or uterus in primarily irradiated patients are localised within the high dose area of radiation and consequently not eligible for radiotherapy. A re-irradiation can be performed, usually in palliative intention, and may be recommended, if no surgical treatment is feasible.
For pelvic side wall recurrences the treatment of choice is extended surgery with or without postoperative radiotherapy, in favourable disease in curative intent. If no surgery can be performed palliative radiotherapy combining EBRT and BT or exclusive BT can be applied.

94 INVITED

Psychological issues and supportive care

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Supportive care is defined as care that aims to optimize the comfort, function, and social support of patients and their families at all stages of the illness. This definition incorporates the concept of health-related quality of life. Women with pelvic relapse in gynaecology are confronted with various psychosocial problems. The areas most affected are body image disturbances, disruption of family and social relationships, difficulty with intimacy and sexuality, increased general distress, and fear of recurrence and dying. Treating patients with pelvic relapse is challenging, since the goal of treatment has shifted from curative to palliative interventions. In patients with advanced cancer medical decision-making is closely related to maintaining or improving the quality of life of patients. Decisions are particularly problematic for patients with advanced gynaecological malignancies since treatment related risk have to be balanced with the benefits of treatment. The benefits often have to be weighed against the distressing side effects. A variety of factors may influence treatment decisions including the probability of survival or recovery, and perceived quality of life that reflects the patients' view and experiences with cancer treatment. The therapy selected should be consistent with the patient's values and preferences. In 'trade-off' situations patients may be willing to compromise on quantity to maximise quality of life. Physicians should therefore provide sufficient quality of life and survival data. Empirical results of quality of life research in gynaecological oncology will be presented in the context of medical decision-making. Assessment of patient preferences and expectations, quality of life outcomes, health status assessment and shared decision making in patients with pelvic relapse will also be discussed.

Scientific Symposium
Bone tumours in children and adolescents – future directions

95 INVITED

Prognostic importance of the molecular genetics

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Over the last two decades remarkable progress has been achieved in the therapy of paediatric cancers resulting in cure rates up to >90%. These improvements are primarily due to the development of successful treatment protocols for leukaemia, while effective therapy of solid tumours lags behind. This is particularly true for bone tumours and other sarcomas. Here, the presence of metastasis at diagnosis or early relapse is still almost invariably associated with dismal prognosis, while multi modal treatment of localized disease is successful in up to 70% of cases. Obviously, treatment failure is most frequently associated with systemic disease that may be assessed by the determination of minimal disseminated disease (MDD) at diagnosis. For this purpose, tumour specific genetic aberrations such as recurrent chromosomal translocations serve as optimal targets for high sensitivity detection with molecular methods. MDD may, however, escape detection and therapy by homing to remote skeletal locations. Alternatively, disseminated tumour cells may have acquired a dormant state that escapes detection due to altered tumour cell activity and phenotype. Molecular genetics comparing transcriptomes of tumour cells after experimental manipulation and among tumours of different prognosis aim at identifying gene expression patterns and eventually surrogate markers for different tumour cell phenotypes. Tumour cells may have either lost check point control for DNA damage and/or have increased survival mechanisms which, under therapeutic pressure, result in the rapid evolution to a therapy resistant phenotype. *Tp53* mutation and *INK4A* gene alterations are prominent aberrations associated with this type of therapy resistance and consequently with bad prognosis. With these and few other exceptions, markers that allow identify high risk patients already at diagnosis are scarce and, so far, not sufficiently reliable to predict outcome with certainty. In part, this is due to small sample sizes in retrospective analyses and the lack of large prospective validation studies. The multicentric EuroE.W.I.N.G.99 study is the first to prospectively evaluate two putative molecular prognostic markers identified in several small scale retrospective studies in Ewing's sarcoma, *EWS-FLI1* gene fusion structure and *EWS-FLI1* based MDD detection. However, treatment options for high risk patients are limited and no break through has been achieved in the therapy of these patients thus far. Therefore in the future, the search for reliable prognostic parameters might rather result in the identification of those patients that may possibly profit from reduced therapy than those for whom even intensified treatment is most likely going to fail.

96 Abstract not received

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Treatment of Ewing's tumors: current status and outlook for the future

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The Ewing sarcoma family of tumors comprises a group of well characterized neoplasms with aggressive behavior. Despite significant