End 01

SURVIVAL RATES IN ENDOMETRIAL CANCER - A RETROSPECTIVE ANALYSIS

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Cancer of the uterine corpus has gained importance over the past several years. Treatment modalities such as surgery, radiation and hormonal manipulations have been refined without fundamental changes. Between 1955 and 1983 381 patients were admitted for primary treatment of endometrial cancer at the department of gynecology, 376 of these were treated with curative intent. Treatment consisted of surgery (TAHBSO) with or without radiation or of radiation only combining intracavitary and external beam techniques. Some patients were also given progestational agents. Overall survival was the endpoint of our evaluation. Analysis was performed using the SAS computer program. Survival rates were calculated with the life table method (BMDP soft-ware).
The overall survival of the entire group after 5 years was 65,7 %, SE 2,5. 5-year-survival by stage: I (n=284): 73,7 % SE 2,7, II (n=35): 43,1 % SE 8,7, III (n=33): 55,2 % SE 8,9, IV (n=21): 7,1 % SE 6,3

5-year survival by treatment (55 patients, who also received hormonal treatment were excluded):

surgery only	(n=54): 81,9 %	SE 5,5
surgery and radiation	(n=173):72,9 %	SE 3,5
radiation only	(n=91): 49,8 %	SE 5,3

5-year survival by treatment in stage I for two age groups

surgery only	age	median: 57,2 %	age	median: 96,6 %
surg. and rad.	age	median: 67,0 %	age	median: 89,7 %
rad. only	age	median: 40,0 %	age	median: 82,1 %

The overall survival rates are similar to previously published data. The higher survival rate of stage III patients compared to stage II patients can be attributed to the small number of patients and inaccuracy of clinical staging. Looking at the treatment results in stage I patients in different age groups, the combination of surgery and radiation is preferable in the elderly patients whereas surgery only in the younger patients. This could also be attributed to the higher number of less differentiated tumors in the older patients where a more aggressive treatment is needed.

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End 02

PEANUT-AGGLUTININ (PNA) BINDING IN NORMAL AND NEOPLASTIC ENDOMETRIAL TISSUE AND IN CELL CULTURES OF ENDOMETRIAL CARCINOMAS

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In the present study, we investigated the extent to which the histochemical results obtained with Peanut agglutinin (PNA) in breast cancer tissue can be related to other organs which are likewise steroid hormonedependent. The endometrium appeared to be especially suitable, since extensive knowledge has been obtained on the endocrine regulation of manifest endometrial carcinoma. PNA binding sites were expressed in the proliferation- and secretion phase of the normal cycle with the highest values of staining about ovulation. In the glandular-cystic hyperplasia and adenomatous hyperplasia PNA binding sites could always be demonstrated. Of the 52 endometrial carcinomas investigated, 47 (90,4%) showed PNA binding sites. The staining pattern varied from case to case and even within the carcinomas concerning both the pattern as well as the intensity of staining. The quantitative analysis revealed an unequivocal correlation between the degree of histological differentiation and PNA binding. In tumors with grade I, distinct PNA binding could be detected in 85%, whereas in tumors of grade II only in 42%. Seven tumors of grade III did not show any PNA binding. PNA binding could be investigated in three endometrial carcinoma cell lines. In all cases, the primary tumor was PNA positive. In the corresponding cell cultures, PNA binding could likewise be demonstrated with the peroxidase technique in all cases.

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End 03

HYSTEROSONOGRAPHY: A PROGRESS IN DIAGNOSIS AND TREATMENT OF THE CARCINOMA OF THE ENDOMETRIUM?

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Till now the reproducible visualization of the structure the myometrium uteri and the endometrium with its pathological alterations was an unresolved problem. The exact location and extention of carcinomas within the uterus is important in planning operative and radiation therapy. Scanning is done with the ultrasonic equipment SSD 500 and the scanner ASU 52 (5mm, Aloka Comp.). The scanner is inserted into the uterine cavity and sectional images are produced. A picture of a normal uterus shows a homogeneous, fine dotted myometrium. The outer border is well demarcated by an echogenic serosa. The scanner lies within the echofree uterine cavity which is surrounded by the echorich endometrium. Carcinomas of the endometrium are hysterosonographically detectable when they are macroscopically visible. Carcinomas that are only microscopically visible cannot be detected by hysterosonography. Exophytic growing tumors have an echodense aappearance within the normally echofree uterine cavity. Infiltrative growing tumors show a less dense echo pattern than normal myometrium. Over 60 cases of carcinomas of the endometrium have been examined and operated on. The correlation between hysterosonographic pictures to the macroscopic sections of the same location showed the following results: (cor: correlation coefficient; m: mean value; st.dev: standard deviation; regr.line: regression line)
infiltrative growing carcinomas
depth of infiltration / length of infiltration
cor: 0,996 / 0,997; m: 8,543 / 28,763; st.dev: 6,538 / 24,381;
regr.line: x= 1,012y - 0,175 x= 1,015y - 0,710
exophytic growing carcinomas
exophitic growth / length of carcinoma
cor: 0,848 / 0,984; m: 28,763 / 32,437 st.dev: 7,328 / 26,552;
regr.line: x= 1,053y - 0,631 x= 1,022y - 0,843
Comparison with other radiologic procedures (hysterography, percutaneous ultrasound, CT) shows that hysterosonography is the best suitable method for determination of the macroscopic fine structure. Hysterosonography enables us as the first method to determine before therapy the depth of infiltration and the extension of carcinomas within the uterus. If necessary the operative procedure may be altered. In case of a radiotherapy the exact target volume for intracavity radiotherapy can be determined. The optimal isodose curves can be directly overlaid over the hysterosonographic pictures. Till now 44 cases have been treated radiologically after having been controlled by this new modality.

End 04

PROGNOSTIC RELEVANCE OF ESTROGEN- AND PROGESTERONE RECEPTORS IN ENDOMETRIAL CANCER

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Estrogen (ER)- and Progesterone (PR) receptors are engaged in the physiological cyclic changes of the normal endometrium in premenopausal female. Endometrial carcinomas also possess ER und PR, however, in a considerably lower concentration. Gestagen treatment of advanced endometrial cancer with unknown receptorstatus is effective only in about 30 percent whereas in receptorpositive cases hormonal treatment shows better results according to recent publications.
Tissue samples of 160 patients with endometrial carcinomas in different stages were surgically removed; corresponding tissue was then taken to usual histological investigation and receptor determination by dextran coated charcoal (DDC) method. According to Young et al. (1976) and Ehrlich et al. (1981) a borderline of > 50 fmol/ml protein was decided to be receptorpositive. Receptor content of endometrial cancer was then correlated to anamnestical and clinical data. In 130 patients data were collected in an observation period of more than 6 months up to 5 years and a life table analysis could be performed (siemens SPSS).
In 60 percent of all cases both receptors could be demonstrated, 15 percent had only one receptor, 25 percent were receptornegative. There were no differences regarding anamnestical data (menarche, menopause, parity) between receptorpositive and negative patients. Regarding clinical data correlations between receptorstatus and clinical stage, histological differentiation and myometrial invasion could be confirmed: well differentiated carcinomas in early stage were more frequent receptorpositive than poorly differentiated in advanced stage. Life table analysis of 130 patients showed a significant longer survival time of patients with steroidreceptorpositive endometrial cancer separated into stage with nearly identical stage adapted treatment.

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