

The significance of Doppler flow and anamnesis in the diagnosis of fallopian tube cancer

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Summary

By following Doppler flow of the small pelvis with laboratory parameters and anamnesis data, we obtained more precise diagnostic possibilities for timely discovering of malignant processes in adnexal region and fallopian tube.

By following patients who had come for routine check ups, prompted by a positive family history for malignant processes, resistant indexes of blood vessels in the adnexal region and vascularisation pattern were determined.

Out of 78 women observed in the postmenopausal period with diagnosed adnexal masses, we found two cases of fallopian tube cancer. Resistance indexes ranged between 0.20 and 0.30 during a one-month period. Hystopathological analysis pointed to fallopian tube cancer.

Besides Doppler flow, only patient history of amber extract use was significant. By CA125 marker analysis, we found an increased value but not significant enough.

Both patients had a positive family history according to the female hereditary line.

Key words: Fallopian tube cancer; Doppler flow; Amber extract.

Introduction

Salpinx uterine sarcoma can be pure or mixed. They are very rare tumors – the literature data has described less than 50 cases so far, mostly in women in the postmenopausal period. Most frequently they are carcinosarcoma or leiomyosarcoma. The clinical picture describes abdominal pain with vaginal bleeding or watery secretion with signs of peritoneal spreading. Even with radical surgery applied in this case (total hysterectomy with bilateral salpingo-oophorectomy together with omentectomy and pelvic and paraaortal lymphadenectomy) the incidence of early local recurrence is very high (up to 2 years after initial treatment). The clinical picture is characterized by distant hematogenous metastasis in the lungs, liver and bones. Malignant changes in the ovaries need to be considered, thus the structure of the ovary must be precisely separated during diagnosis. The prognosis is very poor and survival is expressed in months with these patients. The administration of postoperative therapy by radiotherapy or chemotherapy does not influence survival.

Fallopian tube cancer has non-specific symptoms and can remain unnoticed for a long time. Patognomonic Lutzke trials of symptoms, pain, adnexal mass and vaginal discharge are rare but one of these symptoms is always present [7].

Additional symptoms are postmenopausal bleeding, watery discharge following short pain with cramps and general weakness if the carcinoma has spread.

Diagnostically different is diverticulosis, renal colic or lumbar ischialgia. The intensity of symptoms depends on the stage of the disease [2].

Fallopian tube cancer is diagnosed by patient history, palpation, diagnostic dilatation and curettage. Transabdominal ultrasound can be helpful but sometimes it can be harmful because of insufficient precision [9]. Distended ovarian tubes can look like hydrosalpinx or endometrioid foci.

CA125 following enables easier diagnosis to some extent.

Materials and Methods

We observed 78 cases with a positive family history of lower malignant pelvic alterations. Patients complained about lower pelvic pain.

Ultrasonographic examination revealed adnexal masses similar to sactosalpinx.

In all patients laboratory tests for CA125, sedimentation, chemogram, biochemistry, gynecological examinations, colposcopic examinations, secretion analyses and history taking were performed.

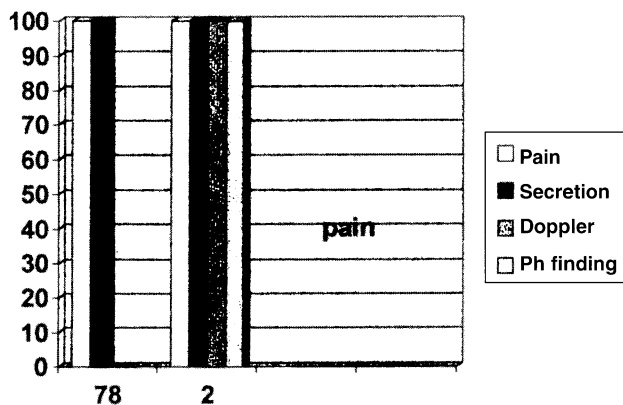
Doppler flow measured resistance indexes and vascularization patterns. Obtained data were statistically processed by t-test and Fisher analysis.

Results

We examined patients in the postmenopausal period during an 8-year period at the Institute for Gynecology and Obstetrics, Clinical Center of Serbia. Lower pelvic pain as well as family history was positive in all examined patients.

We chose a group of patients with suspected adnexal processes for sactosalpinx by ultrasonography.

In 70 women (89.7%), there was increased secretion with flora responding to Enterococcus or E. Coli antibiotics found in 80% of the cases. After curing the infections, we found amber color discharge in eight women. A Papanicolaou test and colposcopic findings were regular.



Figure

Vascular patterns and resistance indexes in observed neovascularisation were determined by Doppler flow.

The resistance index (RI) was significantly lower in two patients, i.e. RI 0.20 to 0.30. In 14 patients the RI was between 0.30 and 0.40 while in other patients it was not decreased.

In two patients with lower resistance the vascular pattern was irregular while in the other 14 suspected cases irregularities were of weaker intensity. Color Doppler was less distinct at first glance. In 45% of the cases the marker value was above 25/ml.

Hemogram values did not deviate except for an increased number of granulocytes (78% to 89%) in conditions of boundary leucocytosis in 68% of the cases. Sedimentation values did not exceed 18/24.

Considering adnexal mass findings, after the exclusion of infections, together with positive family history and subjective discomfort, patients underwent surgeries after giving written consent.

Salpingo-oophorectomy was performed in all cases because there were no indications for hysterectomy. The postoperative course was regular.

The fact that we found fallopian tube carcinoma in two patients led us to analyze all parameters. Patients did not belong to a significant group in relation to leucocytes, sedimentation or even markers.

The only positive parameters were amber extract and an extremely low resistance index of neovascularisation for suspected sactosalpinx origin. Patients were subjected to more intensive surgery.

Even though we can find in the literature data the appearance of postmenopausal bleeding, not one of our patients had such symptom, not even in two cases of fallopian tube cancer.

The significance of vaginal ultrasonographic examination is in early discovery of tumor neovascularisation and it has been stated that a resistance index under 0.20 to 0.40 responds to borderline values of benign and malignant processes. Moreover, the arrangement of blood vessels, i.e. a chaotic arrangement, is a very significant parameter in establishing diagnosis. The resistance index is 0.35 while maximal systole velocity is 16.7 cm/sec and CA125 is 75/ml.

The treatment is hysterectomy with bilateral salpingo-

oophorectomy and platinum chemotherapy. The survival rate is 35%.

The prognosis is much better if the tumor is discovered earlier. In Stage I, the five-year survival rate is 70%, while it is less than 25-30% in Stages IB to IIIC. It has been determined that platinum chemotherapy significantly improves the outcome.

Conclusions

Even though we can find literature data about the significance of ultrasonographic examination, there is the question of giving more significance to Doppler flow compared to earlier approaches.

The only positive signs in our patients were decreased Doppler flow, significant diversity of neovascularisation and distinct amber color discharge. Pain and positive family history were the indications for radical surgery.

Moreover, in postmenopause, even with all negative parameters, pain, irregular postmenopausal bleeding, leucocyte formula and ethrocyte sedimentation, good or borderline marker values, vascular network and low resistance index are sufficient parameters for radical surgery. Radical surgery should not be avoided because repeated surgery can cause psychological stress and decreased quality of life.

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