



ESGO Traveling Fellowship

Fellows Report

Name of Fellow: Anna Dückelmann MD

Position at Home Institution: trainee

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Name of Mentor at Host Institution: Daniela Fischerová MD PhD

Position at Host Institution: Ass. Prof.

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Detailed description on Teaching received, goals accomplished, achievement in clinical practice:

During my training in Prague I was able to improve my sonographic skills becoming much more confident in doing ultrasound in oncological patients for diagnosis and follow-up. I had the opportunity to see many interesting as well as rare cases and to collect imaging material to establish my own image data base. Together with Dr. Fischerová who works as a clinician and researcher at the Gynecological Oncology Centre, Department of Gynecology and Obstetrics, 1st Medical Faculty of Charles University in Prague, lead by Prof. D. Cibula, we took part in international ongoing ultrasound trials in gynecological oncology, in particular trials under the aegis of IOTA (International Ovarian Tumor Analysis)-Group (e.g. IOTA 5). I assisted Mrs. Fischerová in her consultation specialized in ultrasound in gynaecological oncology, establishing my own diagnosis and concept of therapy and discussing my ideas with

her. I got to know other colleagues doing ultrasound and we discussed differences in screening, staging, diagnosis and therapy between different doctors and countries.

In addition, I participated in the oncological consultation prescribing chemotherapies at the outpatient clinic. I also gained experience in surgery and new techniques having the opportunity to regularly assist in surgeries of those patients with ovarian cancer who were seen in the ultrasound consultation before for indication. I could assist in or at least observe every surgery, with laparotomy or laparoscopically, I was interested in, getting a lot of tips and tricks. Furthermore I observed more than 20 tru-cut biopsies. Every week I participated in the interdisciplinary tumor board. I had also the possibility to join every professional meeting and interdisciplinary discussion during my stay in Prague organized by this very busy Center of Gynaecological Oncology with a high number of patients and a high publication output, so I was invited to the International Video Workshop on radical surgery which took place in Prague in April 2014.

Presentations eg. at seminar or meetings:

Short oral presentation, presented by A. Dückelmann at the World Congress of ISUOG (International Society of Ultrasound in Obstetrics and Gynaecology) in Barcelona 09/2014: Prize for the best short oral communication in the category "Gynecology":

The association of changes in cervical cancer echogenicity and vascularization with treatment effect of neoadjuvant chemotherapy

Frühauf F, Dückelmann A, Fischerova D, Zikan M, Pinkavova I, Dusek L, Dundr P, Cibula D

Objectives: The aim of this study was to compare the echogenicity and vascularization of cervical squamous cell carcinomas (SCC) and adenocarcinomas (AC) and to assess the changes of these ultrasound parameters after neoadjuvant chemotherapy (NACT) in relation to tumor response to treatment.

Conclusions: Our study revealed significant difference of echogenicity between SCC and AC. Changes of echogenicity and vascularization are potential non-invasive markers for prediction of tumor response in patients with cervical cancer.

Oral communication at the World Congress of ISUOG 2014:

Agreement of 2D and 3D ultrasound and magnetic resonance imaging in the assessment of rectosigmoid infiltration in primary or recurrent ovarian cancer.

Chiappa V, Zikan M, Kocian R, Frühauf F, Dueckelmann A, Dundr P, Cibula D, Fischerova D

Objectives: To define a methodology and to assess the presence and the depth of rectosigmoid infiltration with magnetic resonance imaging (MRI), bidimensional (2D), and three-dimensional (3D) transvaginal ultrasound (TVUS) in patients undergoing surgery for ovarian cancer.

Conclusions: Both TVUS and MRI were good tools in the preoperative assessment of ovarian cancer spread to the posterior compartment of the pelvis. TVUS showed, however, better agreement to histology in the assessment of depth of rectosigmoid infiltration. TVUS should be, therefore, considered as a method of choice to assess local spread of ovarian cancer in the pelvis.

Research performed and outcome:

Data collection of tumor topography assessment of cervical cancer using ultrasound, as transrectal ultrasound (TRUS) should be considered as an accurate diagnostic method in the evaluation of tumor size and in the detection of residual tumor following neoadjuvant chemotherapy (NACT) in patients with cervical cancer. (see Pinkavova I, Fischerova D, Zikan M et al., *Ultrasound Obstet Gynecol* 2013; 42: 705–712)

Preparation of a pictorial paper on eGISTs (extra gastrointestinal stromal tumors) to define specific ultrasound findings of this rare tumor entity as we had seen two cases of eGISTs during my last months in Prague.

Review as a practical summary of IOTA (International Ovarian Tumor Analysis) ultrasound features: Easy descriptors - simple rules - subjective assessment (for further details please see publications)

For information on further research please see presentations at congress.

Publications:

Vorgehen beim Adnexbefund (Management of adnexal lesions), review. Dückelmann AM, Fischerová D. Submitted.

Abstract: Ultrasound, if performed by an expert experienced in oncology, is the most accurate, and therefore the ideal method of differentiating between benign and malignant adnexal lesions. However, not every patient can be examined by a specialist. "Simple descriptors" and prediction models derived from IOTA (International Ovarian Tumor Analysis) can assist less-experienced examiners to assess adnexal lesions. They are user-friendly and work well in clinical routine because of their immediate applicability. A precondition for this is the correct description of adnexal lesions using the standard IOTA terminology systematically.

Nearly a half of all adnexal masses may be diagnosed correctly based on their typical sonomorphological pattern. The advantage of the "simple descriptors" is their intuitive use and closeness to daily clinical practice. The correct identification of adnexal lesions as either malignant or benign is achieved in 75% of all cases using the "simple ultrasound rules" alone. A combination of simple descriptors and simple ultrasound rules allows us to establish a diagnosis in up to 80% of adnexal lesions. The logistic regression models (LR1 and 2) serve as an alternative to the simple descriptors and rules and are based on anamnestic, clinical and sonographic parameters. In the case of inconclusive or indeterminate results using the simple rules or LR models, the patient should be presented to an ultrasound expert. The IOTA prediction models change clinical practice today as they enable a precise, immediate diagnosis of most adnexal masses significantly reducing the number of patients referred to an ultrasound expert.

Problems encountered with a critical evaluation of the fellowship experience as a whole:

Despite the fact that all colleagues at the Gynecological Oncology Centre communicated either in English or German with me, I underestimated the importance of the Czech language even though I did a language course before my stay in Czech Republic. Almost none of the nurses working in Prague knew a foreign language, and neither did the patients. That is why it was quite complicated sometimes to organize things and communicate with the patients in an adequate way, especially at the

beginning. Over the time and with the help of my language teacher I got familiar with this difficult language and could express myself sufficiently.

The second problem I encountered was the irregular presence of Dr. Fischerová at the Department. Before the beginning of my stay I did not know that she will have consultation only two times a week. In addition to that she is very busy and a popular speaker so she was quite often invited to congresses and not in Prague accordingly. I had the possibility of course to participate in the daily life of the department (consultation, tumor board, operation theater etc.) whenever I wanted to but no one felt really responsible for me when Mrs Fischerová was not there.

Future plan on returning to home:

The goal is now to continue our close cooperation between the Gynecological Oncology Centre at the Charles University and at the Charité, to finish ongoing trials and to conduct further studies regarding ovarial and cervical carcinoma together.

The studies on neoadjuvant chemotherapy in cervical cancer as well as on the assessment of rectosigmoid infiltration in ovarian cancer (data presented at congress in Barcelona) are finished and will be submitted to a peer-reviewed journal as soon as possible. At both centers we will continue to enclose patients in our study on cervical cancer and volume measuring till the end of the year. In addition to that we continue to collect cases of eGISTS (extra gastrointestinal stromal tumors) to prepare a pictorial paper on eGISTS. Another case report about a very unusual ultrasound appearance of a borderline tumor of the ovary is prepared and still has to be submitted to an international journal.

Overall evaluation and comment of the fellowship:

I can very much recommend a fellowship at the Gynecological Oncological Center in Prague, in particular for the purpose of getting to know new surgical techniques doing oncological operations as well as of learning ultrasound for staging in oncological patients. I profit a lot of the experience gained there now and I very much appreciated the opportunity to see an extraordinary well working but different medicine in another country.

Concerning the period of the fellow ship I realized after the time of 6 months in Prague

that it would have been better probably to stay either 4-6 weeks or at least one year. 6 weeks are enough to get an idea of several surgeries carried out at this specialized center and to observe Dr. Fischerová doing ultrasound in oncological patients. 6 months however are not enough for studying Czech and establishing own trials or offering consulting hours on one's own.

I am very grateful to ESGO for this great chance and I am convinced that I will live on my experience in Prague all my professional life.