Project on the use of ultrasonography as a support tool for the study of medical semeiology at the Faculty of Medicine in Cluj-Napoca

The current progress and the fast pace at which knowledge is updated in the field of biomedical sciences are an obvious phenomenon of our times and one that we need to adjust to. Such an accelerated progress impacts upon the medical approach and management of individual patients and of groups of patients. This evolution also compels us to permanently adjust and review the methodology applied to providing information and to learning in medical schools. It is obvious that both educators and students nowadays resort ever more often to resources based on digital information which, in its turn, can be dynamic or tri-dimensional; today any process can be simulated and/or decomposed into explicit schematic sequences. Hence the need to develop new teaching and learning approaches in all medical schools, but without overlooking the traditional methods that have proved effective over hundreds, if not thousands of years.

Starting from the above, as well as relying on related initiatives carried out in other medical schools worldwide, at the Faculty of Medicine of the University of Medicine and Pharmacy “Iuliu Hatieganu” in Cluj, a group of teachers who use general ultrasonography as a regular investigation method have set off a project aiming at using ultrasonography as a support tool for the study of medical semeiology. The project mainly targets the improvement of the medical education process for the 3rd year students taking the semeiology subject matter.

The basic consideration taken as a starting point is that it is easier for medical students to grasp and retain basic aspects of medical semeiology if, beside the traditional instruments (anamnesis, inspection, palpation, percussion, auscultation), they can also resort to a visual method for examining patients, namely ultrasonography. Our vision is that ultrasonography is the ideal tool in order to actually “see” and easily understand what stands behind an objective semeiological modification such as a fluid collection, a palpable mass or a heart murmur …

Our project has been developed as a one-year pilot study involving only part of the students who are currently studying medical semeiology; they are split into two groups – one in which students only use traditional learning methods, and the other in which they are also trained to use ultrasonography as a support tool. Students in the second group shall also benefit from basic information concerning ultrasound physics and basic ultrasound semeiology. The equipment used shall be small portable devices with good quality grayscale image and Doppler colour option available.

For the beginning we are aiming to approach, together with our students, only a few organs and syndromes with objective modifications considered to be representative: the thyroid, pleural effusion, mitral failure (systolic murmur in the auscultation area of the left ventricle), the liver/the spleen and the ascites syndrome.
A clinical examination protocol has been developed for each of these situations and, for half of the students, it is supplemented by an ultrasound examination protocol. The groups of students shall be assessed by a clinical skill assessment test using the same methodology at the end of each module. These stage tests shall be completed with a final test which also includes an individual satisfaction survey.

We believe that the project briefly described here shall open a new path for real progress concerning the effectiveness of our teaching approach at the Faculty of Medicine. This first step shall play as an argument to include real-time ultrasonography as a teaching instrument also in the other years of clinical training, that is in the fundamental morphologic and functional studies. We are persuaded that our students’ satisfaction and enthusiasm shall thus grow together with the competitiveness and relevance of the medical training provided by our faculty.

We also have a few advantages on our side, among which the fact that the Faculty of Medicine is currently undergoing a curriculum review and is also in the process of establishing a modern clinical skills centre; moreover, we have the required know-how and the human resources trained to use ultrasonography, as well as an important company to provide us with the required logistics (equipment) for this project.

We feel optimistic, just as our students, and take it upon ourselves to report in this journal once the pilot study is completed in order to provide the expected answers to those who are competent to assess its effectiveness: students, teachers and practitioners.

Prof Petru Adrian Mircea, MD, PhD
1st Internal Medicine Department,
UMF Iuliu Hatieganu, Cluj-Napoca, Romania

Erratum

On the cover of the Vol. 13, number 3/2011 issue of the printed Medical Ultrasonography journal due to a regrettable typing error, the name of the month is June instead of September.