

Will Pathology Teaching Flourish in an Integrated Medical Curriculum?

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To The Editor: The structure of modern-day medical school curricula places great emphasis on the integration between basic science and clinical medicine. Hence new integrated teaching methodologies that include system-, case- and problem-based learning (PBL) have been adopted. Such methodologies are likely to shape the future for medical teaching in Libya [1]. In this article we focus on the issues surrounding the teaching of pathology within the integrated curriculum.

The introduction of an integrated curriculum could potentially result in the loss of pathology as an independent subject, and the concern of pathologists regarding the reduction of time spent teaching pathology is well recognised [2-5]. Much of this concern is based on the common misconception that teachers must increase their amount of teaching in order for learners to increase their amount of learning. However, learning is enhanced more by quality, nature and relevance of teaching rather than by quantity [6]. Therefore, in order to deliver quality teaching, it is necessary to establish measurable learning outcomes which define what qualifying medical students need to know, what skills they require and attitudes they should develop by the end of the course. Some pathologists are arguing that the loss of pathology as an independent subject will reduce student exposure and discourage new graduates to embrace pathology as a career. However, many of the newer curricula incorporate student-selected components, which encourage students to study in-depth areas of the course that interest them. Such a slot in pathology, for example, would provide ample opportunity for pathologists to engage with and inspire students. Furthermore, there is evidence to suggest that new teaching methods such as PBL can help to increase student awareness and consideration of pathology as a career [7].

With regards to autopsy, its value in undergraduate teaching is generally accepted. However the retention of organs is becoming increasingly difficult as a consequence of societal pressure for obvious reasons. Fortunately, pathology is a greatly visual subject and therefore its teaching lends itself nicely to the use of information technology (IT). Currently, there are many professional web-based resources which can facilitate learning through the use of images of gross and microscopic pathology. Furthermore, IT and computer-aided learning packages give students the ability to study at their own pace and to conduct self assessments at various stages, providing instantaneous individual feedback on progress while encouraging active independent learning. Therefore, the use of IT resources in delivering the modern curriculum is essential [8-10].

Shortage of Pathology teaching staff has been cited as a hurdle for not embracing PBL in Pathology [11]. However, it is well established that PBL facilitators do not necessarily need to be medically qualified [12]. Although the

interaction between staff and students is greatly increased where pathologists facilitate small groups, there is no absolute requirement for all tutors to be senior staff. Junior staff and senior students can be a valuable and inexpensive resource. However, in order for pathology tutors to effectively deliver the curriculum, they must learn and adopt new skills in facilitating student learning rather than in traditional teaching.

To conclude, it is vital for pathologists to be proactive in shaping the new curriculum and ensuring extensive pathology input into all aspects of the undergraduate course. One way in which pathologists can improve integrated teaching and enhance pathology input is by defining the knowledge and skills that are essential for a student to possess and to incorporate these into the new curriculum by actively engaging with course organisers. How pathology might fare in the new environment will depend on the enthusiasm with which pathologists seek to be part of it.

References

- 1- Kurer MA. Moving to Problem-Based Learning (PBL) in Libya – the sooner the better. *Libyan J Med* 2008 AOP: 080718.
- 2- Kumar K, Indurkha A, Nguyen H. Curricular trends in instruction of pathology: a nationwide longitudinal study from 1993 to present. *Hum Pathol* 2001; 32:1147-53.
- 3- Iversen OH. The teaching of pathology in undergraduate education programmes in medicine in Europe. *Pathol Res Pract* 1997; 193:241-56.
- 4- Davis JS, Mistry FD. The pathology curriculum in US medical schools – 1986 survey by the Association of Pathology Chairmen. *Arch Pathol Lab Med* 1987; 111:1088-92.
- 5- Kumar K, Daniel J, Doig K, Agamanolis D. Teaching of pathology in United States medical schools, 1996/1997 Survey. *Hum Pathol* 1998; 29:750-5.
- 6- Peyton JWR. Teaching & Learning in Medical Practice. Manticore Europe Limited 1998 (p18).
- 7- Black WC, Anderson RE. Problem-based teaching of pathology: is it cost-effective? *Hum Pathol* 1990; 21:879-80.
- 8- Hawkins NJ, Ward RL, Smith LW. The images of disease project: a computer-based aid to the teaching of pathology. *Med Teacher* 1997; 19:45-50.
- 9- Reid WA, Harvey J, Watson GR, Luqmani R, Harkin PJR, Arends MJ. Medical student appraisal of interactive computer-assisted learning programmes embedded in a general pathology course. *J Pathol* 2000; 191:462-5.
- 10- Klatt EC, Dennis S. Web-based pathology education. *Arch Pathol Lab Med* 1998; 122:475-9.
- 11- Weedon D. Whither pathology in medical education? *Med J Aust*. 2003 Mar 3;178(5):200-2.
- 12- Benbow EW, Rutishauser S, Stoddart RW, Andrew SM, Freemount AJ. Pathologists and problem-based learning. *J Pathol* 1996; 180:340-2.