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#### ABSTRACTS

### THE 18th CONGRESS OF THE INTERNATIONAL FEDERATION OF ASSOCIATIONS OF ANATOMISTS

#### BEIJING CHINA 08-10 AUGUST 2014

Edited by Yunqing Li, Changman Zhou

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**Content** Foreword

Abstract Authors index Shaoxiang Zhang; Prof. 3th Military Medical University, Chongqing China

**Chunhua Zhao; Prof.** Peking Union Medical College, Beijing China

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Hongquan Zhang; Prof. Peking University, Beijing China

**Chao Ma Prof.** Peking Union Medical College, Beijing China

2 3-285 286-xxx

#### Foreword

The 18th Congress of the International Federation of Associations of Anatomists (IFAA) is scheduled for August 8-10, 2014 in Beijing, China. On behalf of the organizing committee and the Chinese Society for Anatomical Sciences (CSAS), I would welcome you to attend this Congress. The congress will be hosted by the CSAS and will take place at the Beijing International Conference Centre, Beijing Continental Grand Hotel, Beijing, China. The conference centre and hotel are located in the Beijing Olympic Park. A wide range of accommodations are available around the Park, from budget accommodation up to 7 stars hotels to suit all tastes and requirements.

The theme of the Congress will be **Anatomy**, **from gross to molecular and digital**. This IFAA Congress, as always, aims to bring together anatomists and other scientists from around the globe to present and debate the latest and best research on anatomy, histology, morphology, cell biology, developmental biology, anthropology and digitized morphology during the coming 4 years. It will provide an opportunity for networking for all delegates.

Beijing, as the Capital of China with an over 5,000 years civilization history, has countless historic and scenic spots, such as the Great Wall, Forbidden City, Summer Palace, Temple of Heaven, etc. You may have had a glimpse of her breathtaking beauty during the Beijing 2008 Olympic Games. The 2014 IFAA Congress will provide you an unforgettable opportunity to experience it by yourself. We will organize a wide range of a half day or one day tours for your family during the conference. We will also arrange pre-/post-conference tours for you and your family to visit various tourist attractions around China.

We look forward to the pleasure of greeting you at what promises to be an exciting and fruitful meeting.

See you in Beijing! See you in 2014!

ympi li

Professor Yunqing Li, MD, PhD. President of Chinese Society for Anatomical Sciences Professor of Anatomy Head of Department of Anatomy, The Fourth Military Medical University, Xi'an, PR China Email: <u>deptanat@fmmu.edu.cn</u>

The increasing development and accessibility of digital technology has transformed student learning and the consequential change in the education environment is entering a new era. Students' engagement to maximise their learning outcomes can be promoted by their access to both technology-enhanced and active learning strategies that are now available on a global scale via the internet. The possibility of sharing (globally) extensive and "state-of-the art" teaching resources is now a reality as is collaborative learning between students - also on a global scale. The teaching of histology is expensive particularly in some universities with limited access to ageing resources such as microscopes and inadequate histological slide collections. Increasing numbers of students has often required duplications of laboratory classes. Laboratory classes are staff intensive and so teaching hours are increased. Technology can now solve these issues and also caters for the self-directed and independent learning needs of students. Over the past several years we have successfully developed innovative resources for teaching histology and now students can learn their histology completely online. Our new website is an innovative portal for delivering a complete online histology course and this presentation will demonstrate all the newly upgraded functionalities including formal assessment strategies. This presentation will also demonstrate the capacity of this website to be an authoritative academic resource for regular information on histology nomenclatures.

#### IFAA2014-9-062

# The role of postmortem angiography in forensic investigation, medical education and clinical anatomy

Silke Grabherr<sup>1</sup>, Christine Chevallier<sup>1,2</sup>, Jochen Grimm<sup>1,2</sup>, Valentin Djonov<sup>3</sup>, Beat Riederer<sup>4</sup>

<sup>1</sup>University Center of Legal Medicine Lausanne – Geneva, University Hospital Lausanne, Rue du Bugnon 21, CH-1011 Lausanne; <sup>2</sup>Department of Diagnostic and Interventional Radiology, University Hospital Lausanne, Rue de Bugnon 46, CH-1011 Lausanne; <sup>3</sup>Department of Anatomy, University Bern, Baltzerstrasse 3, CH-3000 Bern 9; <sup>4</sup>Department of Fundamental Neurosciences and Center of Psychiatric Neurosciences FBM, University of Lausanne and University Hospital Lausanne, CH-1005 Switzerland \*Silke.Grabherr@chuv.ch

The introduction of radiological imaging techniques in postmortem disciplines, especially in forensic pathology has created a new field of research during the last years. Performing a pre-autopsy MDCT (Multi-detector computed tomography) scan has already become a routine investigation in many centers. To increase the sensitivity of the radiological exam, PMCTA (Post-Mortem Computed Tomography Angiography) has been introduced. The most widespread technique today is called Multi-phase postmortem CT-angiography (MPMCTA). Beside forensic investigation, PMCTA also finds different applications in medical education. The obtained images are for example used in dissecting courses, permitting the students to investigate the vascular system on cross-sectional and three dimensional images as well as on the cadaver itself. The material developed for the technique of MPMCTA is also used in clinical anatomy, particularly the perfusion machine and the oily contrast-agent mixture. In fact, using these devices allows the establishment of a post-mortem vascular circulation which can be used to simulate in-vivo conditions during training of surgery techniques and to perform endovascular intervention. The postmortem circulation proved to be essential to deliver and implant endovascular material such as self-expending aortic valves.

#### IFAA2014-9-063

"Cadaver was alive, phantom never": medical students' perceptions on cadaver dissection

Nur Afrainin Syah

Department of Anatomy, Faculty of Medicine Andalas University, Padang, Indonesia. \*<u>nurafraininsyah@fk.unand.ac.id</u>

Similar to other medical training centres worldwide, the implementation of Problem-Based Learning (PBL) in school of medicine at Andalas University has significantly reduced the number of lectures and limited the use of dissection in teaching anatomy. This study explores students' perception on the importance of dissection in learning about the anatomy. This is a qualitative research. Data was collected through 3 focus group discussions consists of 5 students each, and in depth interview with 8 students. Data was analysed using Grounded Theory methods. Students reported that dissection session provoke thoughts of mortality and respect for human life and dignity. They believed that anatomy phantoms would not be able to provoke these similarly. Besides, cadavers are more similar to the human body. Phantoms look pretty weird with different colouring of the arteries, veins and nerves that perceived by the students could interfere with their understanding on the human body. Furthermore, students reported that doing dissection and learning anatomy topography are both interesting and able to increase understanding on basic science concepts and stimulate curiosity towards clinical science. Thus, Dissection is still able to provide a positive experience for students.

#### IFAA2014-9-064

## Is the use of cadavers still necessary for teaching anatomy?

Andrea O. Rocha, Arlete Hilbig, Leonardo R. Thomaz, Marília P. Paiva, Marina Cornelli, Lucas Simonetti, Giulia S. Del Valle, Julia Pedron

#### Federal University of Health Sciences of Porto Alegre \*<u>oxleyrocha@gmail.com</u>

The Brazilian reality shows that the lack of cadavers may harm the quality of anatomy teaching in universities. Therefore, the creation of body donation programs has become an alternative in solving this problem. At the Federal University of Health Sciences of Porto Alegre, the number of donations increased 87% after the Body Donation Program was established. However, the doubt surrounding the students' interest in the use of bodies remains. Thus, we assessed the opinion of university students concerning the use of cadavers in anatomy teaching and the quality of academic training through questionnaires applied from July, 2013 to February, "Cadaver was Alive, Phantom Never": Medical Students' Perceptions on Cadaver Dissection



Nur Afrainin Syah Faculty of Medicine Andalas University, Padang, Indonesia



#### Introduction

Similar to other medical training centres worldwide, the implementation of Problem-Based Learning (PBL) in school of medicine at Andalas University has significantly reduced the number of lectures and limited the use of dissection in teaching anatomy.

#### Aims

This study explores students' perception on the importance of dissection in learning anatomy.

#### Methods

This is a qualitative research. Data was collected through 3 focus group discussions consists of 5 students each, and in depth interview with 8 students. Data was analysed using Grounded Theory methods.



#### Contact

Nur Afrainin Syah (drnurafrainin@yahoo.co.uk)



#### Results

- students reported that dissection session provoke thoughts of mortality and respect for human life and dignity.
- They believed that anatomy phantoms would not be able to provoke these similarly.
- Besides, cadavers are more similar to the human body.
- Phantoms look pretty weird with different colouring of the arteries, veins and nerves that perceived by the students could interfere with their understanding on the human body.
- Students reported that doing dissection and learning anatomy topography are both interesting and able to increase understanding on basic science concepts and stimulate curiosity towards clinical science.

#### **Conclusion and Implication**

- Dissection is still able to provide a positive experience for students.
- Sufficient time for dissection should be allocated within the PBL curricula.

## "Cadaver was Alive, Phantom Never": Medical Students' Perceptions on Cadaver Dissection

Nur Afrainin Syah

#### ABSTRACT

Similar to other medical training centres worldwide, the implementation of Problem-Based Learning (PBL) in school of medicine at Andalas University has significantly reduced the number of lectures and limited the use of dissection in teaching anatomy. This study explores students' perception on the importance of dissection in learning about the anatomy. This is a qualitative research. Data was collected through 3 focus group discussions consists of 5 students each, and in depth interview with 8 students. Data was analysed using Grounded Theory methods. Students reported that dissection session provoke thoughts of mortality and respect for human life and dignity. They believed that anatomy phantoms would not be able to provoke these similarly. Besides, cadavers are more similar to the human body. Phantoms look pretty weird with different colouring of the arteries, veins and nerves that perceived by the students could interfere with their understanding on the human body. Furthermore, students reported that doing dissection and learning anatomy topography are both interesting and able to increase understanding on basic science concepts and stimulate curiosity towards clinical science. Thus, Dissection is still able to provide a positive experience for students.

Keywords: medical education, undergraduate, teaching strategies, anatomy, dissection.

#### PENDAHULUAN

Perubahan metode pembelajaran dari metode kompensional ke sistem *Problem-Based Learning (PBL)* di Fakultas Kedokteran. Hal ini sangat dirasakan berkurangnya jumlah waktu dosen dalam memberikan materi/ kuliah pada mahasiswa. Sistem PBL ini menuntut mahasiswa yang ber-peran aktif. Sistem ini terdiri dari kuliah pengantar, tutorial, keterampil-an dan pleno serta belajar mandiri.<sup>1</sup>

Anatomi merupakan ilmu dasar di bidang kedokteran yang mempelajari struktur atau geografi dan fungsi tubuh manusia. Setiap mahasiswa kedokter-an wajib mempelajari dan memahami ilmu ini untuk dapat mempermudah memahami bidang ilmu lain karena ilmu anatomi sangat berkaitan dengan bidang ilmu lain yang ada dalam kurikulum kedokteran.<sup>1.2</sup> Sistem kom-pensional mahasiswa mendapatkan kuliah anatomi selama 3 semester dengan materi kuliah dan praktikum di laboratorium anatomi, sedangkan pada sistem PBL ini banyak sekali pengurangan waktu kuliah tatap muka dengan pakar/dosen, serta waktu praktikum juga berkurang.<sup>1</sup>

Belajar anatomi didapatkan dari bahan kuliah, teks book, atlas, video dan phantom serta mengunakan cadaver. Dari semua pengunaan cadaver sangat penting karena sesuai dengan struktur asli tubuh manusia. Dimana atlas dan video hanya bisa dilihat tidak ada sensasi raba saat dipegang langsung sedangkan men-gunakan phantom juga sudah dibuat sedemikin rupa sehingga dapat dibedakan dengan warna yang ada seperti vena, arteri otot yang sudah diberi warna yang berbeda.

Pengunaan cadaver dalam pem-belajaran anatomi sangat tepat sekali karena struktur dan tektur yang sama. Teknik diseksi pada cadaver merupa-kan suatu cara yang paling tepat dalam mempelajari dan memahami anatomi dimana mahasiswa akan melakukan sayatan mulai dari kulit kemudian melakukan eksplorasi mulai dari lapisan kulit sampai ke lapisan yang paling dalam. Hal ini dapat membantu mahasiswa memahami materi yang disampaikan saat kuliah karena langung melihat secara topografinya dibandingkan hanya melihat gambar dan phantom saja.<sup>3.4</sup> Dengan memahami ilmu anatomi mahasiswa kedokteran akan mudah mempelajari ilmu klinik, mempermudah dalam prektek klinik dan keterkaitan ilmu.

Berdasarkan latar belakang dapat diasumsikan bahwa pembelajaran anatomi dengan mengunakan sistem diseksi pada cadaver dapat mening-katkan pemahaman pada mahasiswa kedokteran dalam mempelajari stuktur tubuh manusia.Penelitian ini bertujuan untuk mengetahui presepsi maha-siswa tentang pentingnya diseksi cadaver dalam belajar anatomi.

#### **METODE**

Penelitian ini mengunakan desain "qualitative research". Data diambil dari 3 kelompok mahasiswa yang mana setiap kelompok terdiri dari 5 orang mahasiswa. Selanjutnya dilaku-kan wawancara yang mendalam pada 8 orang mahasiswa. Kemudian data dianalisis dengan mengunakan suatu metode yaitu *Grounded Theory methods*.

#### HASIL DAN PEMBAHASAN

Hasil wawancara dengan maha-siswa didapatkan beberapa persepsi dari mahasiswa antara lain; Mahasiswa melaporkan bahwa diseksi dapat memprovokasi pikiran untuk dapat menghormati kehidupan dan martabat manusia. Selain itu cadaver juga lebih mirip dengan tubuh manusia sesungguhnya dibandingkan dengan phantom. Dimana phantom dapat menganggu pemahaman maha-siswa terhadap tubuh manusia karena dibuat dengan warna yang berbeda seperti ateri, vena, saraf sehingga tidak sesuai dengan aslinya tubuh manusia. Mahasiswa juga menyam-paikan bahwa melakukan diseksi dan belajar topografi sangat menarik dan dapat meningkatkan pemahaman mereka tentang konsep-konsep ilmu dasar dan merangsang rasa ingin tahu terhadap ilmu pengetahuan klinis.

Hasil penelitian ini sesuai dengan penelitian yang dilakukan oleh Azer, dan Eizenberg (2007) bahwa maha-siswa kedokteran lebih mudah mema-hami anatomi dengan mengunakan metode diseksi dan pembelajaran anatomi ini perlu diperkuat pada tahun pertama dan kedua dalam kurikulum kedokteran.<sup>1</sup> Dengan diseksi dan topografi mahasiswa akan mempermudah memahami dan mem-perdalam anatomi sehingga mudah dimengerti. Anatomi merupakan ilmu dasar di bidang kedokteran yang sangat penting sebelum mahasiswa memahami ilmu klinik dan keteram-pilan klinik.<sup>1.2</sup> Belajar anatomi dengan teknik diseksi ini juga akan meningkat-kan pemahaman mahasiswa tentang konsep-konsep ilmu dasar bidang kedokteran dan merangsang rasa ingin tahu mereka terhadap ilmu pengetahuan klinis.

Kurikulum PBL ini sangat penting diperkuat pendalaman mahasiswa tentang anatomi karena alokasi waktu kuliah yang sangat kurang sehingga sangat diperlukan waktu yang cukup untuk melakukan teknik diseksi. Diharapkan dengan penambahan waktu untuk melakukan diseksi dapat meningkatkan kemampuan maha-siswa kedokteran dalam mempelajari dan memahami anatomi sehingga dapat dipergunakan dalam mempela-jari ilmu klinis dan keterampilan yang harus mereka miliki sebagai dokter nantinya.

#### **KESIMPULAN**

Penelitian ini dapat disimpulkan bahwa diseksi masih mampu mem-berikan pengalaman positif untuk ma-hasiswa dalam memperdalam kosep-konsep ilmu dasar maka perlu dialo-kasikan waktu yang cukup untuk me-lakukan diseksi dalam kurikulum PBL

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