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The Anatomical and Clinical Study of Exotic Animals in a Website

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1. Introduction

Exotic animals have, in today's society, social importance as pets and economic importance for the increasing quantity of zoos, which include these animals as a clear point of interest. The degree in Veterinary Medicine is highly aware of this fact. Because of this reason, the Faculty of Veterinary Medicine of the Complutense University implemented Anatomy of Exotic Animals in 1998. In subsequent years it was followed by other subjects, focused on the study of these animals, from a physiological, pharmacological or clinical standpoint.
As an example of the interest aroused by these animals, the Anatomy of Exotic Animals is also present in the new Veterinary Curriculum (implemented in 2010), as an optional subject in which teachers of different departments will participate, including people working in the Veterinary
Hospital. Nowadays, authors of the present paper are working to ensure the existence of a professional course on Exotic Animals, either a master or a specialization course.
Biologists and veterinarians are closely interconnected. It is obvious that small mammals, birds and reptiles are of great importance regarding the work of many biologists devoted to these animals in different fields: conservation, reproduction, etc. Thus, Zoology is one of its main pillars.
The reality of the European Higher Education (EHEA) has promoted two fundamental principles: the establishment of a cross-cutting concept in the transmission of knowledge and a different point of view in university education. Aware of this fact, we have constituted a multidisciplinary team, including professionals and clinicians that have resulted, so far, in the development of nine Educational Innovation Projects (Proyectos de Innovación Educativa-P.I.E.) [1], [2], [3], [4], [5], [6], [7], [8], [9]. Thus, Anatomy of Exotic Animals started with a simple approach and now has a more professional and more practical orientation, putting anatomy in relation to animal and clinical management. It must be pointed out that these publications and interactive educational CD's have been used successfully in teaching Veterinary Medicine and Biological Sciences.
The present contribution has been developed by teachers and professionals of different Schools and Institutions: Complutense University (School of Veterinary Medicine and Biological Sciences), Faunia, Clínica Veterinaria Los Sauces and University of Las Palmas de Gran Canaria (School of Veterinary Medicine). It is a real commitment to open approach and exchange of ideas in an environment of constant change as Internet. It gives UCM students the opportunity to know firsthand experiences and content being taught at the Las Palmas Veterinary School, and of course, the same in reverse, concerning students in Las Palmas. And, of course, gives clinicians and professionals the opportunity to have a sort of "meeting point", in which exotic animals are the main goal.

2. Results and Conclusions

As mentioned before, up until today, this group has developed nine projects on educational innovation to support teaching in Anatomy of Exotic Animals. These projects are the result of the collaboration between university teachers and veterinary clinicians working in private institutions and provide students with a material which fosters the applied sense of Anatomy, its close relationship with the clinic, and the cross-learning as a key element in the new era which is starting for Spanish and European University. The dual version Spanish-English facilitates the dissemination of our results. Examples are given in figures 1-3.

Fig. 1. Example of P.I.E. 2010/98. Clinical case in a cockatoo. Note that Anatomy and Radiological Anatomy are also included

Fig. 2. Example of P.I.E. 2010/98. Clinical case in a guinea pig. Note that Anatomy and Radiological Anatomy are also included

Fig. 3. Example of P.I.E. 2010/98. Clinical case in a snake. Note that Anatomy and Radiological Anatomy are also included

The last of these projects [10], which corresponds to the present contribution, is the creation of a virtual space dedicated exclusively to exotic animals. The authors have benefited from their own Virtual Space of the Complutense University. Although the main axis is anatomy and clinical cases, the approach is completely open worldwide and dynamic, including links of interest, chats, quizzes, and so on. There is room for courses, with the corresponding self-assessment for students, resolution of clinical cases, and exchange f information with experts from around the world as well as discussion forums. In summary, the main goal is to give impetus to this new learning culture, which started years ago with the Principles of Bologna Treaty, to facilitate both academic performance and students' professional preparation (see Figures 4-6).

Fig. 4. Example of P.I.E. 2011/257. Home page in English and Spanish. Note that the Project acronym is UNICOMEX (University Complutense Exotics)

Fig. 5. Example of P.I.E. 2011/257. Anatomy of the chinchilla. Note that other things as propedeutics, husbandry or links of interest are also included

Fig.6. Example of P.I.E. 2011/257. Radiological Anatomy. Laterolateral view of a healthy parrot

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