

COOPERATION IN THE PRACTICAL TEACHING OF INFECTIOUS DISEASES

Fernando Maltez

Director of the Infectious Diseases Department of Curry Cabral Hospital

Tel: + 351 217924280

Email: fmaltez@hccabral.min-saude.pt

The improvement of sanitary conditions in industrialized countries, the implementation of immunization programmes, and the introduction of antibiotics made some people believe in the 1960s that infectious diseases would disappear. They were deeply wrong, since they are not over and, instead, have become more important and prevalent globally. A few of these diseases have been prevented thanks to compulsory vaccination, while others have been eliminated through therapy. However, one notes that the microorganism always wins due to the resistance it acquires to the anti-infective agent, a phenomenon that is further aggravated by improper prescription of antibiotics, which has become one of the most serious problems of public health. The development of new means of diagnosis and therapy, prolonged hospital stays and increased longevity of patients have, in turn, facilitated the occurrence of more hospital infections, which account for higher costs, high morbidity, and high mortality. The wider prescription of immunosuppressive therapies has also favoured the higher frequency of opportunistic infections and the identification of less common agents. For example, controlling infection in transplant patients is now a major clinical challenge. Concomitantly, new infectious agents have been emerging (over fifty in the last thirty years) and it has been acknowledged that many clinical units should have infectious aetiology. This is what happened with gastric ulcer (*H. pylori*), carcinoma of the cervix (HPV), lymphoma (Epstein-Barr virus), Castleman's disease, and Kaposi's sarcoma (HHV-8) or Whipple's disease (*T. whipplei*). Indeed, it will happen to many more diseases. Meanwhile, a new chapter in infectious pathology has started: that of emerging diseases such as AIDS, SARS or bird flu, which are responsible for pandemics or major epidemics, while major diseases of major global prevalence have manifested themselves in new ways, such as MDR-TB and extensively drug-resistant tuberculosis. Fast means of transportation have enabled the rapid appearance, at any time and any country, of diseases that were normally confined to certain areas of the globe. The latest example was the pandemic caused by the influenza virus A (H1N1). OMS statistics show that there is no final victory over infections, and that some stand out for having worrying levels of incidence. Tuberculosis, AIDS and malaria alone cause over 12 million deaths annually. It must equally be stressed that, when they extend beyond hospitals or the homes of patients, infectious pathologies can have serious repercussions on the population, given the contagiousness of some diseases. Outbreaks of cholera or meningitis are examples of this. Finally, it should also be noted that there is the possibility of easy transmission contagious weapons or biological agents being used at any moment, which may have devastating epidemic consequences.

Out of a total of 58.8 million deaths annually worldwide, it is estimated that approximately 15 million (25.5%) are due to infectious diseases.

Infectious diseases have specific characteristics that distinguish them from other medical diseases. Amongst others, they are unpredictable, have an abrupt onset and the potential for an explosive global impact. In the absence of treatment, either they kill or

the patient recovers spontaneously, often becoming protected against reinfection. They result from a single agent and do not require other co-factors to manifest themselves. They are transmissible and have the potential to be prevented and to be eradicated.

These reasons seem to be more than sufficient to make infectious diseases an important subject which should involve professionals well trained in epidemiology, pathogenesis, clinic, and treatment of infection. Physicians need to know existing diseases well and be prepared for the emergence of new infectious pathologies.

For the same reasons, it seems to me that the teaching of this specialty is of particular importance.

Curry Cabral Hospital opened in 1906 with the aim of providing Lisbon with a place for the recovery of patients with tuberculosis. Since then, the city had at its disposal a large hospital with wards that were also used to isolate other infectious patients. Its classification as a specialized hospital lasted until 1978, when the introduction of others specialties led to its reclassification as a General Hospital. Over the years, it has played a major role in the fight against these diseases, such as cholera and diphtheria epidemics or, more recently, AIDS and tuberculosis. Interestingly, the first and current Infectious Diseases Department of this hospital was created only about one hundred years later, in March 2004. As the heir of that historical past, it developed and tried to adjust to the evolution of infectious diseases globally. Among its multiple functions, it has a particular fondness and interest about undergraduate and postgraduate training. Therefore, it was with great satisfaction that, in 2007, we accepted the invitation of the Faculty of Medicine of the University of Lisbon and of Professor Francisco Antunes to participate in the practical teaching of this subject.

Teaching is an activity that requires passion, time and dedication. It should attract trainers who are interested and able to share knowledge, and also capable of attracting students to this specialty. This association with the Faculty greatly honours us and has proved to be highly rewarding, and it gives us the opportunity of teaching a fascinating subject in a place with deep traditions in this medical field.