

JOSEP TRUETA: ORTHOPAEDIC SURGEON AND RESEARCHER



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JOSEP TRUETA WAS ONE OF THE MOST IMPORTANT ORTHOPAEDIC SURGEONS OF THIS CENTURY. HE BECAME THE MAXIMUM AUTHORITY ON THE PHYSIOPATHOLOGY OF BONES AND WAS ONE OF THE FIRST PEOPLE TO UNDERSTAND THE IMPORTANCE OF EXPERIMENTS ON ANIMALS IN RELATION TO ORTHOPAEDIC SURGERY.

There is no doubt that Josep Trueta was one of the most important orthopaedic surgeons this century. Born in Barcelona in 1897, his youth was spent in the atmosphere of the beginning of the 20th century, when Catalonia was going through a period of great creativity under the influence of great architects, painters, musicians, sculptors and writers: Gaudí, Puig i Cadafalch, Picasso, Nonell, Granados, Albéniz, Casals and so many others. He was lucky enough to grow up in this remarkable cultural climate and complete his training at the Barcelona Faculty of Medicine. He had a brilliant career as a surgeon, and at the age of 36 he was given the post of Head of Surgical Services at the Sant Pau Hospital, the most prestigious hospital in Barcelona at that time.

The tragedy of the Spanish civil war, which started a few years later, interrupted this development, and in 1939, shortly before the outbreak of World War II, he settled in England, where he

lived until 1965. One cannot help but admire the intelligence, energy and tenacity with which he faced the difficult times of two wars and his long exile, and achieved international fame working in a foreign country.

Trueta's contribution to war surgery is one of the best-known aspects of his work. His system for treating war wounds has helped thousands of people, not only in the military confrontations that have taken place since the Spanish civil war, but also in severe injuries from other causes.

The principles of his treatment, which Trueta had already described in his book during the Spanish conflict, originally published in Catalan in a Barcelona edition of 1938 (*Tractament de les fractures de guerra*), was to revolutionize the treatment of wounds, during the Spanish civil war and afterwards during the Second World War. In 1939, he was made adviser to the British Ministry of Health on the treatment of the injured in the war that seemed imminent.

During the war, he had to fight against the inertia and the reluctance to abandon outmoded forms of treatment inherited from the First World War—during which the mortality rate and the loss of limbs as a result of gangrene were disastrous—before finally managing to implant his method of treatment. Almost forty years later, an eminent British surgeon was to write an obituary for Trueta in which he said that his arrival in Britain just before those fateful years was an act of God. Thanks to him, countless lives and limbs were saved and incalculable suffering was avoided. Of the many homages he received, both from the public and from governments and scientific societies, he was awarded the title of Doctor Honoris Causa by the University of Oxford. In presenting Trueta to the members of the university, the speaker said, "The Romans crown a man who has saved the life of another. Today we are honouring a man who has saved the lives of many". However, Trueta was not happy with



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the idea that he would only be remembered in the future for this aspect of his activities. In his prologue to *Tractament de les fractures de guerra* he expresses his regret that the techniques described should have had to be tried out on human beings, victims of war. So much so that "we surgeons, by the law of our profession, make war on war".

Some years later, in 1949, he was made Professor of Orthopaedics at the University of Oxford. This branch of surgery, which deals with the treatment of bone and joint diseases, was well represented in some countries, amongst them Great Britain, from the point of view of medical attendance, but the research being undertaken was scarce or even non-existent. Trueta realised that many of this speciality's problems could not be solved until laboratory investigation resulted in a proper understanding of the physiology and biochemistry of the tissues affected. Gradually, he formed the idea of creating a comprehensive

orthopaedic centre. Laboratories, a library, a conference hall, etc. started to grow up around the hospital, and were completed in 1958. The new Nuffield Orthopaedic Centre (named after its patron) co-ordinated treatment, research and teaching in a single unit. This is the most important complete orthopaedic centre in Great Britain and one of the most important in the world. Generations of orthopaedic surgeons, researchers and other specialised staff have been trained there, and many of them have gone on to occupy professorships and other important posts around the world.

Trueta became the maximum authority on research into the physiopathology of bones. He was one of the first people to understand the importance of animal experiments in relation with ortho-

paedic surgery. His investigations and those of his school have contributed much to our understanding of microscopic anatomy and the cell behaviour of tissues. He stands out for his studies into the supply of blood to the bones, arthrosis, bone growth and deformities, bone infections, the treatment of fractures and many other studies which have come to be the basis for present day knowledge of the most frequent diseases of the locomotor system.

Trueta opened the way in many fields and sowed the seed which has developed into lively research in many centres around the world. He was internationally respected and was invited to speak or otherwise honoured by many of the principal medical societies, some of which even nominated him for the Nobel Prize for Medicine.

When he retired, he settled once more in his beloved Barcelona where he exercised his profession, though without the chance to continue his research directly, until his death in 1977. ■