Editorial

The 100 years Anniversary of the Nobel Price Award to Emil Theodor Kocher, a brilliant far-sighted surgeon, teacher, and research worker. The importance of his teaching and working approach

The Swiss surgeon Emil Theodor Kocher was awarded the Nobel Prize, in 1909, for his "work on the physiology, pathology and surgery of the thyroid gland", which, through the excision or removal of the gland, allowed him to discover its function. He was the first surgeon to receive such an award. He was a pioneer and a world leader in the surgical revolution at the end of the Nineteenth Century. Over a period of 45 years, Kocher broadened his activity in various fields of surgery: he introduced a method for the reduction of dislocations of the shoulder, the dilation theory of strangulation of hernia, mobilization of the duodenum for exploration of the inferior vena cava and the head of the pancreas. Moreover, he applied asepsis (visiting European hospitals, he learned the importance of asepsis which became used as a matter of routine in his clinic), developed tongue resection, performed extraordinary experimental work on haemostasis (by torsion of the arteries) and devoted much time to developing techniques aimed at reducing blood loss (Arterial clamps, and other surgical instruments).

Before 1872, year in which Kocher performed his first thyroidectomy, the mortality rate, related to this surgical procedure, was reported to be as high as 75%. In those days, many surgeons from all over the world believed that thyroidectomy was one of the most dangerous operations, in which an honest or sensitive surgeon should not become involved. In France, the Academy of Medicine, of the time, prohibited thyroidectomy. Based on this background, Kocher studied the anatomy and function of the thyroid gland and this knowledge allowed him to greatly improve his technique: in spite of the prohibitions and of the fear of other surgeons, he started to perform thyroidectomy in 1872. Over the next 10 years, he reported a 12.8% mortality rate in his case records. This success stemmed from his working method which was extremely different from the traditional approach used at that time. His was the knowledge of the anatomy and physiology, and a meticulously precise technique used to dissect tissues with minimal blood loss. It was a rather slow procedure with occasional spectators becoming quite irritated. Not fast, but safe, was his advice to young surgeons. Using this technique, by 1912, Kocher had performed approximately 5000 thyroidectomy operations, with mortality being only 0.5%.

At the beginning of his activity, Kocher visited many important European hospitals and met some of the most famous surgeons of the time. In London, he met Sir Thomas Spencer Wells; together they introduced Statistics ("arithmetical observations") to prove the beneficial effect of "radical surgical techniques" and to control their quality. Death rates, incidence of infections, follow-ups, etc. were assessed and reported. Wells and Kocher used to write so-called "notebooks" about diagnoses and surgical procedures, thus creating a basis for clinical investigations and further studies.

Overall, he published a total of 249 articles and books, the majority of which based on his personal clinical experience and experimental studies.

The teaching of Kocher is still used today and can be summarised in four points:

Importance of meticulous and repeated observations;

Knowledge of anatomy, pathology and surgical techniques;

Accuracy, care and patience during surgical procedures: Not fast, but safe;

Critical Audit of results.

Acta Otorhinolaryngologica Italica, in honour of the memory of this great surgeon, in this, the Centenary of his receiving the Nobel Price award, is dedicating this issue of the journal to the progress made in thyroid surgery, in particular, and to thyroid studies, in general.

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