Summary of PhD Thesis
"*Study of the Residual Pleural Space in the Surgery of Post Tuberculosis Syndromes*"

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Nowadays, tuberculosis is regarded as the most important communicable disease in the world. It is estimated that approximately 8 million new cases of infection appear annually, of which approximately 4 to 5 million cases are highly infectious, and their number is increasing continuously mainly due to demographic explosion and worsening living conditions.

Tuberculosis is an infectious and contagious disease that has a chronic course and is widespread in the population of the vast majority of countries, which, if untreated or improperly treated, has a high death rate. Usually, it affects the young adult population in the most productive years of their life causing directly and indirectly (in terms of economics) serious social consequences. Although tuberculosis can be cured by tuberculostatic treatment, today, it leads to about 2.5-3 million deaths per year, the most common cause of death due to a single causative agent in young people between 15-49 years old.

As it is obvious from the title of the thesis, the paper addresses the problematics of the pleural space in the surgery of post tuberculosis syndromes. The thesis argues with realism the extremely severe present situation of the endemic tuberculosis in Romania, which now exports tuberculosis.

The thesis contains 228 pages, 213 figures, of which 89 radiological and computed tomography images, 32 graphs, 92 colour figures, of which 73 intraoperative images, and 181 bibliographical notes. It is well balanced in a general section and a special section.

The general section (62 pages) consists of a comprehensive presentation of the literature data related to post tuberculosis syndromes. The introduction describes general data related to tuberculosis, its implications for the population and the economic repercussions due to this disease. The first chapter minutely describes information related to the surgical anatomy of the pleural space. The following chapter describes the physiology of the pleural space.

The last chapter of the general section deals with the assessment of surgical procedures in the treatment of residual pleural space in the post tuberculosis syndrome. After a history of techniques used to treat the residual pleural space in the post tuberculosis syndrome, there are listed technical surgical procedures which can be used in this pathology.

The special section, which is almost three quarters of the paper, thoroughly presents the objectives and the hypothesis of the study. The working hypothesis started from the assessment of the patients with residual pleural cavities in the post tuberculosis syndrome and the assessment of the patients in terms of lesions, bacteriology, computed tomography and radiology, the study by using statistical methods of the casuistry of the Surgery IV Discipline (within the Surgery II Clinic) in UMF Târgu Mureș for the period 01.01.2001 – 31.12.2010 –

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aetiology and pathogenesis, clinical diagnosis, radiology and computed tomography, complex medical and surgical treatment.

The thesis describes the surgical procedures used without forgetting to specify the peculiarities of surgical techniques encountered in the surgical practice and particular aspects of the complex medical and surgical treatment of this pathology.

In order to fulfil the objectives and to support the hypothesis, the thesis also presents a number of illustrative case reports to support the hypothesis and the surgical technique ideas which constitute the novelty of the paper. The thesis discusses specifically the problems that this pathology brings to the thoracic surgeon considering the endemic tuberculosis conditions in our country, by suggesting practical solutions that would improve the care outcomes of these patients.

All statistics show an increase in the number of patients that get infected with multi drug resistant bacilli from the onset, a phenomenon explained by contact with drug resistant patients or by early onset drug resistance due to incomplete treatments, therapeutic errors and, quite often, by an exaggerated optimism. In our country there is a large number of hyper chronic tuberculosis cases (over 5 years of evolution), approximately 30,000 patients, with an annual growth rate of about 3,000 patients in addition to the approximately 25,000 – 27,000 new cases/year. These cases, mostly incurable, as they cannot be treated surgically, with lungs destroyed by tuberculosis and multiple cavities, which spread continuously Koch bacilli, constitute a veritable walking reservoir of bacilli with early drug-resistance.

In our country the incidence of tuberculosis is increasing due to reasons such as low patient compliance, increasingly lower socio-economic status of the population, inadequate tuberculostatic treatment which leads to an increase in the number of patients with multiple chemical resistance, lack of regional medical offices for screening and monitoring tuberculosis and the closure of nursing homes after 1989 and then after 1990 in Romania.

Out of the estimated 25,000 to 27,000 new cases of tuberculosis/year, 10% should be treated by surgery, i.e. 2,500 – 2,700 cases per year. All thoracic surgery departments in the country perform surgery on about 400 – 450 cases annually. From the reservoir of chronic and hyper chronic (over 5 years of evolution) patients, rated at about 30,000 patients, 10% should be treated by surgery, i.e. 3,000 cases annually. In total, a number of 5.000 patients per year should be treated by surgery.

The referenced literature is relevant and includes 181 references providing information from important names in the studied field, both from our country and abroad. The thesis can be the starting point of a monograph which would fill in a gap in the literature of Romania.

This analysis of the PhD thesis shows its scientific value considering the originality of the Patent No. 100297/1989, the conclusions of the conducted study and, not lastly, the richness and quality of the iconographic material.

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