

CLINIC OF THORACIC SURGERY AT THE TIMISOARA MUNICIPAL HOSPITAL. 3 YEARS FROM FOUNDATION

Alexandru Nicodin

ABSTRACT

This paper presents the activity of the Clinic of Thoracic Surgery from Timisoara Municipal Hospital, one of the newest in Timisoara, founded in August 2000. The aim of this clinic is to meet in a few years the standards of European Society of Thoracic Surgeons for obtaining the *Center of Excellence* title.

While at the beginning our activity little equipment was available, now we have two standard sets of thoracic surgery instruments, a very good anaesthetic device and the basic set for thoracoscopy and mediastinoscopy procedures, allowing us to perform the whole range of thoracic surgery interventions. The surgical activity, as well as the research and teaching activity of our medical staff are also presented.

In conclusion, though significant progress has been made, the activity of the Clinic of Thoracic Surgery is still at the beginning. There is much to build, both in surgical practice and scientific and research activity, but also on organizational and equipment levels.

Key Words: thoracic surgery, thoracic procedures

GENERAL INFORMATION

The Clinic of Thoracic Surgery from the Timisoara Municipal Hospital was founded in August 2000, at the request of Victor Babes University of Medicine and Pharmacy, Timis Public Health Direction and Timisoara Municipal Hospital. At that time thoracic surgery in Timisoara was involved in permanent conflicts, decreased number of surgical procedures, lack of university teaching staff and referrals for operations to the neighboring countries.

The initial core on which department is based was Thoracic Surgery Department within Emergency Surgery Clinic, headed by Prof. Vladimir Fluture, who offered two wards and an operating room. The Department functioned like that throughout the year 2001. During that period, we have obtained our own on-call line from the Ministry of Health and Family (since 1st May 2001) and from 1st September 2001 the department has been transformed into a clinic.

Since the beginning of 2002, the Clinic of Thoracic Surgery has been working in a new space, on the same floor with the Clinic of Oncologic Surgery and the Radiology Department, having 36 beds and a well-equipped operating room.

Presently, there are five full-time employed surgeons in our clinic: two senior surgeons (Associate Professor

Alexandru Nicodin, M.D., chief of the clinic, and Calin Tunea M.D.) and three specialist surgeons (Assistant Professor Ovidiu Burlacu, M.D., Voicu Voiculescu, M.D., and Gabriel Cozma, M.D.)

At the beginning of our activity, the standard equipment was scarce and we performed operations in General Surgery Clinic's operating rooms using borrowed surgical instruments.

Nowadays we have two standard sets of thoracic surgery instruments, a very good anaesthetic device (obtained through the efforts of Municipal Hospital Board), an autonomous sternotome and a basic set for thoracoscopy and mediastinoscopy procedures (courtesy of the Victor Babes University of Medicine and Pharmacy Board), so the whole range of thoracic surgery operations can be performed in our clinic. By performing video-assisted thoracoscopy surgical (VATS) procedures, significant cost reduction has been achieved due to decreased surgical trauma, shortened hospitalization period and lowered nursing costs.

MEDICAL AND SURGICAL ACTIVITY

In the last three years, we have had 4030 specialty consultations (900 in year 2001, 1,525 in 2002 and 1,605 in 2003, until October 1th) and 1817 hospital admissions

(616 in 2001, 675 in 2002 and 526 to 1st October 2003) (Fig. 1). As a comparison, in the year 2000, Thoracic Surgery Compartment of General Surgery Clinic admitted 261 patients and operated on all of them, mostly for thoracic trauma.

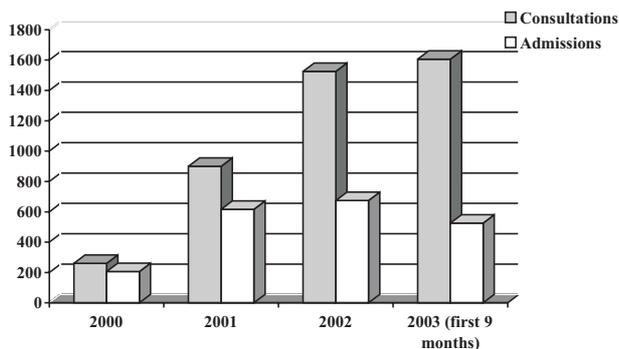


Figure 1. Consultations and admissions (2000 - 2003)

We have performed 1446 surgical thoracic interventions (500 in 2001, 516 in 2002 and 430 until 1st October 2003), 1367 of them were open-chest interventions and 90 were thoracoscopic procedures (Fig. 2). We have used the thoracoscopic approach only starting 2002, when the thoracoscopic surgery kit has become available.

Among open-chest major surgical interventions performed we would mention pulmonary resections (regulated and wedge), pleurectomies, decortications, mediastinal tumour resection, excision of pulmonary hydatid cysts, thoracic wall resections with chest wall reconstruction, interventions on diaphragm, esophagus, pericardium, intrathoracic transposition of pediculated muscle, sternochondroplasties.

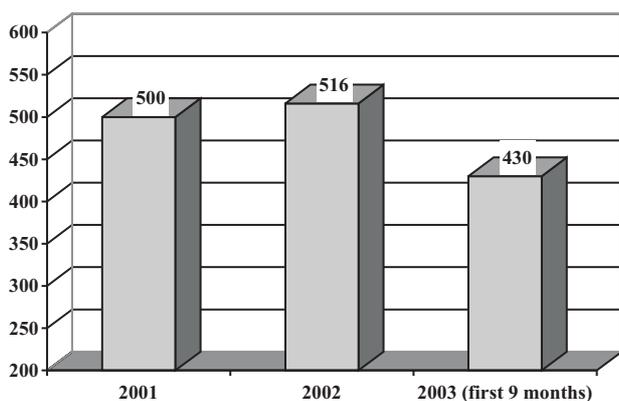


Figure 2. Number of surgical procedures

Thoracoscopic procedures have been mainly diagnostic (pleural, mediastinal and pulmonary biopsies, intrathoracic mammary lymph nodes biopsy, thoracic sympathectomy) but also therapeutic (intra-thoracic blood clot removal, pleuro-pulmonary decortication).

During the year 2002 we started to perform CT-guided transthoracic biopsies, with a total of 137

procedures performed until now. This procedure allowed us to obtain an accurate microscopic diagnosis in patients with broncho-pulmonary masses who either refused surgery, or presented contraindication to surgery (altered general condition, comorbidities, or advanced tumoural stage), thus avoiding abusive thoracotomies.

We have performed 145 bronchoscopies, both diagnostic and therapeutic. Over the same period of time we have performed more than 600 thoracocentesis.

The total number of interventions could have been higher, but the year 2002 was dedicated to organizational issues: the movement of the clinic into a new location, the assembly of a thoracic vacuum system – completed only in September.

For the next year our staff has planned an increase in the number and diversity of major surgical interventions, with a percentage increase of thoracoscopy and mediastinoscopy procedures, and to meet the standards of European Society of Thoracic Surgeons regarding mandatory conditions to obtain the title “Center of Excellence.”

SCIENTIFIC ACTIVITY

During the short period of time elapsed since the foundation of the Clinic of Thoracic Surgery, its medical staff has reported 11 scientific papers at various local and national scientific meetings: Academic Days of Timisoara, The Reunion of Surgeons from Banat, National Conference of Hematology, National Conference of Thoracic Surgery, National Congress of Endoscopic Surgery, International Congress of Vascular Pathology, National Symposium of Thoraco-Abdominal Border Surgery and other scientific meetings.

In this period we have published 3 abstracts¹⁻³ and 4 papers in extenso.⁴⁻⁷

We published an original monograph in 2002 concerning with chest wall reconstruction⁸ and we have edited 10 chapters in surgical textbooks and specialty monographs [V. Fluture (Ed.) – *Surgery*; C. Caloghera (Ed.) – *Emergency Surgery (3rd edition)*; N. Angelescu (Ed.) – *Textbook of Surgical Pathology*; A. Prundeanu, H. Vermesan, H. Prundeanu (Eds.) – *Polytraumatology*].⁹⁻¹⁸

In September 2002 we organized in Timisoara the 3rd National Conference of Thoracic Surgery, highly appreciated by participants from all over the country, where Assoc. Prof. A. Nicodin has been reelected as Secretary General of the Romanian Society of Thoracic Surgery.

Starting December 2002, The Society of Thoracic Surgery from Timisoara has been activated as the local

branch of Romanian Society of Thoracic Surgery, enrolling all thoracic surgeons from Timisoara, Arad, Oradea, Baia Mare and Petrosani.

Three PhD students are currently studying in our clinic research subjects from thoracic surgery: pulmonary contusion, imagistic and surgical correlation in broncho-pulmonar cancer, cardiac complications in pulmonary resections.

We intend to publish a new monograph, regarding the complications in general thoracic surgery and to edit an atlas of surgical procedures of the thoracic wall.

Two of the staff surgeons are full members of the European Society of Thoracic Surgery (ESTS) and two residents are junior members of the ESTS.

RESEARCH ACTIVITY

Our research on an original armed net for chest wall reconstruction has been rewarded with two prizes: Award of the Romanian General Association of Engineers (2001) and Gold Medal at Geneva International Inventions Fair (2002).

This year we have established a research collaboration with National Institute for Research/Development in Textile-Leather, Bucharest, regarding realization of other reconstructive and haemostatic materials for thoracic surgery.

TEACHING ACTIVITY

Teaching staff of our clinic is affiliated with the General, Hepatic and Thoracic Surgery Department of Victor Babes University of Medicine and Pharmacy and conducts clinical stages and courses for 3rd-year medical students.

Between 2001 and 2003, eight residents in thoracic surgery were trained in our clinic, and also several other residents from various surgical specialties.

We have held several short courses of postgraduate education – one course of thoracic traumatology and two about latest acquisitions in thoracoscopic surgery, and a six-month course with final evaluation for competence in thoracic surgery (the first course of this type in Romania).

We have promoted thoracoscopic surgery during three postgraduate courses of laparoscopic surgery, which have been organized by 2nd Surgery Clinic of our University (Prof. Dr. D. Bordos).

In 2003, a course in Thoracic Surgery is held for five residents in this specialty.

In conclusion, though much has been accomplished, the activity of the Clinic of Thoracic Surgery is still at its beginnings. There is much to build, both in surgical practice and scientific and research

activity, but also on organizational and equipment levels. We hope that in 2004 many of our goals will be accomplished.

PUBLICATIONS

I. Abstracts

1. Nicodin A, Cozma G, Tunea C, Burlacu O, Voiculescu V, Miron I, Nicodin G. Chirurgia toracoscopica versus chirurgia toracica videoasistata in diagnosticul tumorilor mediastinale, 4-th Romanian Congress of Laparoscopic Surgery Iasi, 28-31 mai 2003, Revista Medico-Chirurgicala a Societatii de Medici si Naturalisti din Iasi, supl.1 vol 107, pg 44.
2. Nicodin A, Cozma G, Tunea C, Burlacu O, Voiculescu V, Miron I, Nicodin G. Chirurgia miniinvaziva in cancerul bronhopulmonar, 4-th Romanian Congress of Laparoscopic Surgery Iasi, 28-31 mai 2003, Revista Medico-Chirurgicala a Societatii de medici si naturalisti din Iasi, supl.1 vol 107, pg 44.
3. Tudorache V, Nicodin A, Aljobery H, Anghel I, Potre R, Burlacu O, Visman C, Stoia S. Tuberculoza pulmonara pseudotumorală între eroare si dificultate diagnostica, Pneumologia 2002, vol LI, 2, pg 112.

II. Papers published in extenso

4. Nicodin A. Fereastra pleuropericardica. Jurnalul de Chirurgie Toracica 2002;1:78-83.
5. Nicodin A, Lazar F, Duta C, Cozma G, Nicodin G. Splahnicectomia toracoscopica in tratamentul durerii cronice de etiologie pancreatica. Primul Congres national al Asociatiei Romane pentru Chirurgie Endoscopica, cu participare internationala, Bucuresti 17-18 octombrie 2002.
6. Nicodin A, Cozma G, Ilina R, Nicodin G, Nicola T. Samplingul toracoscopic al ganglionilor mamari interni in cancerul de sin. Primul Congres national al Asociatiei Romane pentru Chirurgie Endoscopica, cu participare internationala, Bucuresti 17-18 octombrie 2002.
7. Nicodin A, Cordos I, Pavelescu C, Stoian S, Davidescu M, Horvat T. Vidarea prin chirurgie toracoscopica a cheagului intratoracic posttraumatic. Primul Congres national al Asociatiei Romane pentru Chirurgie Endoscopica, cu participare internationala, Bucuresti 17-18 octombrie 2002.

III. Books

8. Nicodin A. Reconstructia peretelui toracic, Ed. Curtea Veche, Bucuresti, 2002.

IV. Chapters in books

9. Nicodin A. Patologia chirurgicala a peretelui toracic in *Tratat de chirurgie sub red N. Angelescu*, Ed. Medicala, Bucuresti, 2001, pg. 846-858.
10. Nicodin A. Tumorile pleurale primitive, in *Tratat de chirurgie sub red N. Angelescu*, Ed. Medicala, Bucuresti, 2001, pg 875-879.
11. Horvat T, Nicodin A, Tetu M. Patologia chirurgicala a mediastinului, in *Tratat de chirurgie sub red N. Angelescu*, Ed. Medicala, Bucuresti, 2001, pg 996-1023.
12. Horvat T, Nicodin A. Cancerul bronho-pulmonar In *Tratat de chirurgie sub red N. Angelescu*, Ed. Medicala ,Bucuresti, 2001, pg 907-948.
13. Nicodin A. Traumatismele toracice in *Politraumatismele* , sub red. Prundeanu A, Vermesan H, Prundeanu H, Ed Mirton, Timisoara, 2001, pg 359-382.
14. Nicodin A, Cozma G. Chirurgia toracoscopica in *Chirurgie bazele stiintifice si clinice ale practicii*, sub red V. Fluture, Ed. Timpolis, Timisoara 2002, pg. 229-239.
15. Eibo K, Burlacu O, Voiculescu V, Cozma G, Tunea C. Traumatismele toracelui in *Chirurgie – bazele stiintifice si clinice ale practicii*, sub red V. Fluture, Ed. Timpolis, Timisoara 2002, pg. 287-304.
16. Nicodin A, Cozma G. Chirurgia toracica miniinvaziva in *traumatismul toracic in Chirurgia de urgenta ed III sub red C. Caloghera* Ed. Antib, Timisoara 2003, pg. 110-114.
17. Nicodin A, Voiculescu V, Cozma G, Burlacu O, Racovitan V. Reinterventii de urgenta in *chirurgia toracica, in Chirurgia de urgenta ed III sub red C. Caloghera* Ed. Antib Timisoara 2003, pg 115-126.
18. Horvat T, Nicodin A. Traumatismele toracelui, in *Chirurgia de urgenta ed III sub redactia C. Caloghera*, Ed. Antib, Timisoara 2003, pg 95-109.