

We shall not be running out of thoracic or cardiac surgeons in France in the next ten years

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The French Society of Thoracic and Cardiovascular Surgery (SFCTCV) built a database of the 830 surgeons involved in thoracic and/or cardiac surgery in France. It includes all the senior surgeons (552) who do perform cardiac or thoracic surgery whatever the number of operations performed per year, being or not member of the SFCTCV, and all the trainees (278) as soon as they enter a training program of thoracic and/or cardiac surgery.

Global analysis of the age shows that there are boorishly 17 senior surgeons a year of age between the age of 35 and the age of 65. The number of senior residents per year reflects the inflow of manpower in thoracic and cardiac surgery. Distribution according to sex gives evidence of the recent feminization of our profession. There are 5 % of women among the senior surgeons while there are 23 % of women in the senior residents and 31 % of women among our residents.

274 senior surgeons practice cardiac surgery. Among them, 115 practise only the adult cardiac surgery, 27 practises the paediatric cardiac surgery, 31 cardiac and thoracic surgeries, 67 cardiac and vascular surgeries and 34 practises at once the thoracic, car-

diac and vascular surgery. The distribution according to the age and the status of the cardiac, junior and senior surgeons shows that the flow entering of senior residents is completely sufficient to replace the flow of those who retire. There are 47 senior residents practicing the cardiac surgery what makes an entering flow of 11 surgeons a year (calculated on duration of the senior residency of four years in France). This will be far enough for the next two years (2013-2014) but the need drops in the next five years (2015-2019) as only 25 senior cardiac surgeons will reach the age of 65 during this period so the need will be only of 5 per year. On the next four years (2020-2023) the situation should improve for the young surgeons (Table 1). The residents entering the speciality must get ready to make an intermediate period between the end of their residency or senior residency and their final posi-

tion as senior surgeon.

There are 346 surgeons practising thoracic surgery but this activity is often shared in France with another surgery (thoracic and general Surgery: 20, thoracic and cardiac surgery: 31, thoracic, cardiac and vascular 34, thoracic surgery and vascular: 102 and thoracic surgery only 159). The distribution according to the status is appreciably different from that of the cardiac surgeons with a more important proportion of staff physicians (40 %) and of private practitioners (40 %) while the professors-staff physicians represents only 16 % of the surgeons practicing the thoracic surgery but their activity is always focused on thoracic surgery. The distribution according to the age of the thoracic surgeons shows that inflow adequate outflow. It is likely that the generation to come will modify a little the exercise, and the activity of thoracic surgery is going to concentrate on a lower number of individuals who will make a more exclusive thoracic surgery, or mostly will associate thoracic surgery and vascular.

On the whole thus we can consider that the demographic situation of our specialty is far from the desert that one promises to us since years.

Table 1: Demographic perspectives of the next following years in cardiac surgery in France

Period	Number of senior residents in position	Annual flow of senior resident ending training	Number of senior surgeons reaching 65	Mean annual flow of "ending" senior surgeon
2013 2014	47	11 per yr	18	9 per yr
2015 2016 2017 2018 2019	45	11 per yr	25	5 per yr
2020 2021 2022 2023	45	11 per yr	38	9.5 per yr

Accuracy of sentinel node mapping of the squamous cell carcinoma of the esophagus using intra-operative combined blue dye and radiotracer techniques

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Extended surgeries such as two or three field lymph node dissections are gaining more acceptance for treatment of this malignancy. Sentinel node biopsy is an alternative approach in this regard. In the current study we evaluated the accuracy of sentinel node mapping of the squamous cell carcinoma of the esophagus using intra-operative combined blue dye and radiotracer techniques.

Immediately after thoracotomy and before mobilizing the tumor, 1mCi/0.4ml Tc-99m- antimony sulfide colloid was injected in a direction from the adventitia into the submucosa in 2 sites proximal and distal to the tumor. Concomitantly 2ml of 1% Methylene blue was also injected in the same manner. Sentinel node were removed and sent for frozen section and H&E staining. Two field lymphadenectomy was performed for all patients.

Thirty patients (17 males and 13 females) were included in the study with the age of 62.3±9.25 years. Detection rate was 90%. Mean number of sentinel nodes per patient was 2.7±1.3. All detected sentinel

nodes were hot and no blue/cold sentinel node was harvested. Fifteen patients with successful sentinel node mapping had pathological lymph node involvement in 14 of whom sentinel node was pathologically positive too (false negative rate of 6.6%). Frozen section results showed 100% concordant with H&E results. Three patients with detection failure had pT4 tumor. One patient with false negative result had pT3 tumor.

Sentinel node mapping in SCC of the mid to distal esophagus is feasible and accurate especially in pT1 and pT2 tumors.