Precision surgery, it matters

In recent years we are witnessing an increase in thoracic pathology thanks to the increase in lung cancer screening, we have also observed an increase in complex cases of chest wall pathology. Lung cancer screening can lead to overdiagnosis and over-treatment as a result of increased awareness of lung cancer with a more intensive screening and the identification of a larger number of lung nodules with low, medium or high risk of malignancy. This should be an opportunity to optimize the application of the best treatment for patients at risk of lung cancer.

The standardization has meant a very important advance in the improvement of outcomes of the thoracic surgery procedures. It may seem contradictory, therefore, to focus the aim of precision on the management of specific individuals, but precision surgery is a step forward, once standardization is achieved, for most of the procedures used in thoracic surgery, thanks to the greater precision. It is necessary to pay particular attention to individual elements so that the treatments become more effective, we are able to apply a surgery of maximum precision taking into account the individual characteristics of the patients, and this without prejudicing the improvement generated by the standardization of the surgical processes.

In this Focused Issue of the PCM journal about Precision Surgery for Lung Cancer, we gather some contributions in the most innovative aspects of thoracic surgery treatment, from the patient-tailored prevention of post-operative complications after lung resection to the planning, identification and precision marking of the lesions for subsequent approach, as well as how to improve the precision of closed chest sublobar resections. And also the demonstrated effectiveness of the precision of robotic surgery for the treatment of lung cancer or the application of 3D printing technologies for modelling the reconstruction of the chest wall, as a result of collaboration with engineers specialized in biomechanics. Especially relevant is the training in minimally invasive pulmonary resections as a way to increase the accuracy of these procedures. We are confident that the impact of these innovations in the treatment and management of patients with lung cancer or chest wall tumors will result in an improvement in the health and wellness of treated patients.

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