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Editorial

Concentration of Cases Can Improve Clinical Results in Complex Cancer Surgery[☆]



La concentración de tratamientos puede mejorar los resultados clínicos en cirugía compleja del cáncer

The most relevant challenge in healthcare is to continually improve the quality of care and clinical outcomes. In oncology, cancer population registries enable us to compare survival data, one of the main indicators of results, both in our country and internationally, as shown by the EUROCARE and CONCORD projects.^{1,2} The results of these studies show that our country has a significant margin for improvement according to criteria such as 5-year survival rates. Spain as a whole is slightly above the European average at 57.6%, while countries such as Holland or Belgium have survival rates of 62 and 64%, respectively, in the same period. On the other hand, we should highlight that the internal variability in our country is very important between autonomous communities; for example, in rectal cancer, the 5-year survival results varied between 63.5% and 50.1% in the period 2005–2009. These differences are clinically relevant and we must ask ourselves what we can do to improve them and place ourselves at the level of countries with the best results in our setting.

In the vast majority of solid tumors, surgery plays a key role in the multidisciplinary treatment aimed at guaranteeing the best prognosis for patients diagnosed with cancer.³ One of the measures adopted to improve quality and results that has caused the greatest debate is the concentration of surgical treatments for patients with more complex and/or uncommon diseases. Repeated examples of these are surgical procedures for cancers of the esophagus, liver (primary tumor and metastasis), pancreas and rectum in the field of digestive surgery. Research has shown that the hospitals with the highest volume of cases have lower surgical mortality rates,⁴ which implies that the best manner to organize oncological medical services should involve assessing the benefits of concentrating surgical procedures at hospitals that accumulate enough experience to obtain excellent clinical results. In addition, this concentration of cases can facilitate the

necessary clinical research to continue advancing in the fight against cancer in the field of surgery.

However, this restructuring policy entails some controversial aspects that have hindered its application in clinical practice.⁵ Among the most relevant is the difficulty to determine what is the minimum/optimal volume of cases per hospital and/or per surgeon. Decisions to concentrate surgical treatment clearly depend on the scientific evidence of benefits as well as other factors, such as the organization of the national healthcare system, medical professionals and resources of each medical center, and the social factor of the distance between patients' residences and the reference hospital. Centralization may also result in the loss of the capability for clinical-surgical response at hospitals where complex surgeries will no longer be performed. However, more and more countries, such as England, Holland, France or Germany, are reorganizing complex surgery centers to improve clinical outcomes and the quality of care in general. In each country, healthcare policy criteria are slightly different, as are the procedures chosen. The involvement of medical professionals in the process has likewise differed among these countries. In Holland, for instance, physicians have initiated the process and become the main proponents, while in Germany the relationships between hospitals and medical staff have been more conflictive.⁶

Also in Spain, specifically in Catalonia, a program initiated by the Catalan Health Service in 2012 has been developed to concentrate certain oncological surgical procedures (esophagus, pancreas, liver, rectum and stomach) at a limited number of hospitals, based on a previous evaluation of the activity volume and the surgical mortality results for each surgery type. The recently evaluated results have shown a reduction in 30-day surgical mortality (adjusted for other factors) between 30% and 50%.⁷ Although there are aspects of the model design

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itself that should be improved,⁸ the progress in the clinical results obtained is very relevant for patients affected by this type of disease. This set of experiences was the subject of debate in a workday organized by the Spanish Association of Surgeons (*Asociación Española de Cirujanos*) within the framework of the Ministry of Health at the end of 2016. It was concluded that it is feasible to reorganize medical services in oncological surgery, and that restructuring has a relevant impact on the improvement of clinical results within the framework of multidisciplinary cancer care. The very development of the European Reference Networks (ERN) constituted by European reference hospitals for rare diseases, 3 of which have been accredited in the field of oncology (solid tumors, pediatric and hematological), implies the need for Spanish centers to also be on par with European hospitals in volume of cases. On the other hand, this greater volume of treated cases facilitates a frequently forgotten aspect: the possibility to evaluate clinical results consistently and periodically, which is not feasible at medical centers with low annual case volumes.

The challenge in our country is, therefore, twofold: to improve the clinical results of our patients, and to restructure our healthcare services for oncological diseases that are low in frequency or high in therapeutic complexity in order to reach European levels in both healthcare as well as clinical research. The concentration of specific treatments selected for having consistently demonstrated the relationship between results and volume of cases in the literature (and if possible, corroborated within the healthcare system itself) is a path that several European healthcare systems have embarked upon. This should also be a reason for debate among medical professionals in our country. Lastly, it should not be forgotten that dialog with surgeons and their degree of involvement in the definition of this process will be key for the end results,⁹ as their involvement is essential.

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