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Editorial

Do We Have Enough Information to Act Accordingly? The Relation Between Case Volume and Results Revisited Again☆

¿Sabemos lo suficiente para actuar en consecuencia? La relación volumen de casos y resultados clínicos examinada una vez más

Surgery is a key element in the multidisciplinary strategy of oncologic treatment. In fact, 80% of patients diagnosed with cancer will be treated surgically, totalling more than 12 million candidates for surgery worldwide in 2015.[1]

Given this central role in oncologic therapy, it is no surprise that two very relevant objectives of research are quality assessment and how surgical care services should be organised. The debate about the correlation between surgical volume and results has been the subject of many studies since the 1980s. In general, they have demonstrated an association between volume and results,[2] although it is not always clear for all procedures, and certain elements have been debated (whether to analyse results per hospital vs per surgeon, 30-day mortality vs survival, adjustment techniques for risk factors, etc.).

The use of clinical–administrative databases is a classic strategy, and a good example is the article by Pérez-López et al., which accompanies this editorial.[3] The use of this data source has relevant limitations derived from its purpose. An example of these can be observed when we see that the authors did not separate colon from rectal cancer surgery, which are 2 different surgical treatments both in technique as well as in complexity.[4] In this article, they were analysed jointly to avoid inappropriate classifications given the imprecision in the assignation, leading to a mix of surgeries of differing complexities, which makes it difficult to correctly interpret the results. Although these limitations of the minimum basic data set (MBDS) should be taken into consideration, it is undoubtedly the best database available and it covers the entire Spanish National Healthcare System (NHS), making its conclusions especially relevant.

The result is consistent with the international literature[2] and with previous studies done in Catalonia using the same approach.[5] Together, they emphasise the need to consider reorganising the complex surgical oncology treatments offered by hospitals in our country and in accordance with the cancer strategy recommendations of the Spanish NHS (http://www.msssi.es). The data by Pérez-López et al.[3] demonstrate that there are numerous hospitals in Spain that operate with very low case volumes (see Table 2 of the article); their association with worse clinical results should motivate critical reflection and intervention. Along these lines, several reorganisation initiatives in our country are trying to improve the clinical results and quality of gastrointestinal oncology surgery (and neurosurgery, thoracic surgery and sarcomas as well), in keeping with the experience of other countries such as the Netherlands, Denmark, France and England. These initiatives have been promoted by the healthcare administration of Spanish *autonomous communities*. For their application, it is assumed that a minimum volume of cases should be defined after which surgeons have sufficient experience to perform complex surgeries. This minimum volume, which is a useful tool for planning, is very controversial amongst professionals. The evidence for any cut point could be arguable as often times this sort of studies opt for dividing the case volumes by tertiles or quartiles,[3] which is analytically useful but leads to different cut off criteria depending on the database used. The practical application is always difficult and tends to be conservative. This has been demonstrated by the criteria for minimal volumes used in Catalonia, which are low compared to those from other countries (for example, 6 cases per year in oesophageal cancer surgery vs 20 in the Netherlands).

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Nonetheless, the debate cannot be exclusively centred on volume. It should also be complemented with the continuous evaluation of clinical results, while adjusting for known prognostic factors and using clinical databases.[1] Furthermore, what also must be considered are all the healthcare aspects necessary to achieve good therapeutic results, such as the quality of pathology studies, imaging tests, medical oncology and radiotherapy. All this is viable, as demonstrated by initiatives such as the Viking[6] project or clinical audits of all the cases treated in a region.[7,8] Such initiatives evaluate care results in all their complexity and should be the pathway towards the necessary and continued improvement of quality oncological care.

The reorganisation of oncologic surgery should be based on administrative and clinical data. The study by Pérez-López et al., together with other available evidence and healthcare policies applied in several European countries, demonstrate the need for and the viability of these initiatives.

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