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Editorial

Why do residents not choose General Surgery or surgical specialties?

Porque los mir no escogen Cirugía General o especialidades quirúrgicas?

For years now, we have observed how newly graduated doctors who achieve the best scores on the Spanish MIR residency exam generally do not choose to pursue surgical specialties, with only a few exceptions, such as Plastic and Reconstructive Surgery. In this issue of *Cirugía Española*, Barranquero et al.[1] provide a thorough analysis of how the selection of MIR specialist positions has evolved in recent years, confirming a greater preference for non-surgical or medical-surgical hospital positions versus surgical specialties. This year, we have once again observed the same situation in the recent allocation of MIR (Spanish acronym for *Resident Intern Physicians*) 2024 positions.

Most general surgeons find that our specialty offers many characteristics that could seduce vocational doctors: it is a very dynamic specialty that involves daily movement between operating rooms, patient consultations, floor visits and the emergency department; the spectrum of our activities is very broad and considered transversal, as it includes surgery of different systems and organs (endocrine, breast, abdominal wall, digestive system); surgery also requires complete pathophysiological knowledge and includes areas of special multidisciplinary interest, such as oncological surgery, transplant surgery, bariatric surgery, etc. For these reasons, General and Digestive Surgery has been considered a basic, core discipline, whose theoretical foundation is essential to other specialties that have branched out progressively. These characteristics would suggest that graduates with better MIR exam scores, which *a priori* may correlate with better theoretical training or academic predisposition, could have greater interest in this specialty and could opt to choose positions at the best hospitals in Spain.

The specialty of General and Digestive System Surgery is considered a very active and complete specialty, but professionally it is tough. Surgeons must have a well-founded medical and theoretical basis of the diseases they treat. In addition, surgical training to develop technical skills is long and demanding, and it can even be very selective until a competent specialist is trained in routine clinical practice. Surgical sessions and night shifts are physically demanding, while the harsh reality of surgical pathology takes an additional intellectual and emotional toll. This is especially true in oncological or emergency surgeries, which involve very direct and demanding contact with patients and their families, while having to face the continuous specter of possible complications. But the conceptual richness of General Surgery can be summarized very easily in the changes experienced in the specialty over the last 50 years, with generations of 'baby boomer' surgeons who have been able to develop all types of abdominal and thoracic procedures; the initiation, development and consolidation of organ transplantations, many of which are performed by general surgeons; and the triumphant revolution of minimally invasive surgery, as well as the current revolution of the digital age and the development of image-guided and robotic surgery.

Until a few years ago, residents who had achieved the top 2000 MIR exam scores had selected to fill the surgery positions available at the perceived best or most desired hospitals. Currently, however, General Surgery positions remain vacant even beyond the top 2000 residency selections. First of all, we cannot analyze the current situation of recent graduates with the eyes and mentality of a 'baby boomer' who finished medical school 20 or 30 years ago. It is essential to point out that the scale of values and objectives of the new generations are determined and directed by other parameters and priorities. We cannot criticize the fact that recent graduates pursue professional careers in other types of medical or medical-surgical specialties, which can be as satisfactory as any other from a healthcare, scientific, academic or personal

fulfillment standpoint, and which, broadly speaking, do not collide with lifestyles that prioritize quality time and free time to participate in other activities. Several reasons causing this phenomenon have been suggested. In addition to the impact of a new way of seeing and enjoying life for the younger generations, medical training (6 years) is demanding, and there is evidence of episodes of depression and burn-out in a significant percentage of students.[2] The MIR system, which is attractive in terms of its conceptual simplicity, causes an important change in the attitude of many students, whose last few years at university are focused on learning how to take a multi-question exam, something that is in stark contrast with the idealized training as a doctor from a humanistic and professional point of view. The MIR exam itself favors students who are capable of answering questions and does not assess attitudes or other personal characteristics, which is dissimilar from other countries or systems (matching) that assess these factors when choosing a candidate for a specialty. One could also argue the growing and notable change in the profile of medical students, as the percentage of women has been increasing. This change merits careful consideration, without falling back on biased interpretations based on gender stereotypes. Other factors, not related to gender issues, such as individual preferences, personal or professional conditions, the desire for a better quality of life (with fewer night shifts/on-call shifts, or having a set schedule) and leadership opportunities can influence the choice of specialties. It is crucial to approach these issues from a perspective that respects diversity and avoids attributing professional decisions solely to gender-related factors, such as maternity leave or family roles and responsibilities.

To prepare this Editorial, we have carried out an experiment by consulting an artificial intelligence tool (Copilot[3]) with the intention of knowing what conceptual framework is available at the level of general knowledge of society, whose response is summarized below.

Copilot[3]:

The reasons why MIR may prefer not to choose surgical specialties such as General Surgery are varied. Factors that influence this decision include:

1 Quality of life: Specialties like dermatology offer a better quality of life, since they do not require being on call or working night shifts, which allows for more rest and a better work/personal life balance.[1]
2 Working conditions: Night shifts and workload pressure can lead to professional burnout, which makes other specialties without night shifts more attractive.[2]
3 Lack of knowledge about the specialty: Some surgical specialties may be less known or popular among MIR, which affects their choice.[3]
4 Personal preferences: Personal interests and vocation also play an important role in choosing a specialty.[4]

Given this evidence, we should also seek responsibilities. We surgeons should analyze what we have done in recent years, as there is a clear lack of understanding about surgery as a discipline and specialty prior to MIR selection. Likewise, there is a generalized feeling in society that surgery is a specialty that entails a more demanding rhythm of life, which requires sacrifices and makes work/private life conciliation difficult.

Without a doubt, universities, the Spanish Ministry of Health (responsible for the MIR exam), the National Commission for Medical Specialties, surgical departments, scientific societies and surgeons themselves must become aware of this situation and take joint responsibility for the image of the General Surgery specialty. We need to make an effort to modify how we conduct our daily work as surgeons as well as the professional and academic projection of surgery, providing values and generating interest to make it more attractive to current generations. In this context, there are already positive initiatives at different levels, including the Gimberrnat Surgical Association,[4] which has fostered interest in and knowledge about surgery among medical students. Medical schools, curricula and surgical teaching staff also play an essential role in sparking students' interest, while also promoting knowledge and mentoring students with possible interest in this specialty. It will be difficult to reorient the MIR exam to also include the evaluation of attitudes and other factors aside from rote memorization. Inevitably, hospitals and surgical staff are also responsible for promoting work environments that respect labor regulations (leaves, number of night shifts, mutual respect) that have led to a less attractive perception of our specialty,[5–7] while also stimulating resident training, not only in technical matters but also in academics, research and leadership. Meanwhile, the portfolio of activities of professional associations and scientific societies should also include promotion of surgery among undergraduates. In the future, perhaps MIR residents in surgery will not have the highest MIR exam scores, but it is our responsibility for them to be motivated, excited surgeons who guarantee adequate care activity, but who also become responsible for developing and promoting our specialty.

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