

## Comparison of the predictive capacity of the Alvarado and AIR scores in the diagnosis of acute appendicitis: A recurrent analysis of already established results?



### Comparación de la capacidad predictiva de las escalas Alvarado y AIR en el diagnóstico de apendicitis aguda: ¿análisis recurrente de resultados ya establecidos?

We read with particular interest the study by Sanabria-Arévalo et al.<sup>1</sup> that aimed to compare the Alvarado and AIR scores, utilizing the histopathologic analysis, to determine their respective accuracy in diagnosing acute appendicitis. Hopefully, our following observations may contribute to current practice.

In the introduction section of their article, the authors state there is limited information available for comparing the two risk scores.<sup>1</sup> However, numerous studies with a similar methodological approach and eligibility criteria are readily identifiable through a rapid search of the literature, regardless of the inclusion of Boolean operators. For example, in their 2012 study on more than 900 patients, Castro et al.<sup>2</sup> reported an area under the curve for the AIR score that was superior to the Alvarado score (0.96 versus 0.82;  $p < 0.05$ ), and Andersson and Stark,<sup>3</sup> in their meta-analysis that included more than 15,000 patients, found that the pooled area under the curve for all cases was statistically significant and higher for the AIR score (0.85 vs 0.79;  $p < 0.001$ ). Therefore, the results reported by Sanabria-Arévalo et al.<sup>1</sup> appear to already be well-established in previous studies and do not clearly identify new findings of interest for clinical and surgical practice.

Indeed, studies with similar characteristics conducted on Colombian populations are scarce, but other such studies conducted in Latin American countries could have provided beneficial analyses in the study by Sanabria-Arévalo et al.<sup>1</sup>, given the demographic similarities. In a systematic review, Coronel-Castillo et al.<sup>4</sup> emphasize that the AIR score has shown a superior diagnostic yield, not only compared with the Alvarado score, but with other risk assessment tools, as well.

In conclusion, we recognize the relevance of the study by Sanabria-Arévalo et al.<sup>1</sup> and its contribution to analyzing the predictive value of the Alvarado and AIR risk scores in Colombia. However, the robustness of the study's methodology would have been enhanced, and in turn, that of the journal, had there been a more comprehensive aim than those of studies with similar characteristics, or on the other hand, had the study focused on a more detailed description of the study population, along with the analysis of the Alvarado and AIR scores. We consider it necessary to conduct collaborative, multicenter studies in a combined effort to promote evidence-based decisions.

## Ethical considerations

The authors declare they have followed the protocols of their work center regarding the publication of patient data, preserving their anonymity at all times.

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## Declaration of competing interest

The authors declare that there is no conflict of interest.

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