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The impact of confounding factors on the association between chronic rhinosinusitis, obesity and disease recurrence: A critical commentary

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Dear Editor,

We read with great interest the paper by Xie et al. entitled "Elevated body mass index increases the risk of recurrence in Chinese patients with chronic rhinosinusitis" [1].

As the authors aimed to analyze in their study, CRS is associated with different demographic and clinical characteristics, and with comorbidities. These associations help identify individuals with higher risk of postoperative recurrence. We congratulate the authors on this interesting investigation of a poorly understood topic.

The BMI was calculated and categorized according to Chinese standards into four groups: underweight, normal weight, overweight, and obese. The results suggest that obesity and overweight are risk factors for CRS recurrence, and the authors conclude that weight control may help prevent CRS recurrence after FESS.

However, we would like to draw attention to several points worthy of interest.

First, it is not clear whether the postoperative therapy, namely intranasal corticosteroid and the 3-month course of macrolides administration, is considered by the authors a standard postoperative therapy or a rescue therapy. In the latter case, this individual variable could have introduced bias or error in the results. Therefore, it should be taken into consideration as a possible factor which can modify the likelihood, the timing and the severity of a CRS recurrence. In this regard, while nasal saline irrigations are unanimously recommended for patients undergoing sinus surgery, the use of antibiotics after FESS is still debated. Swords et al. [2] in their recent meta-analyses conclude that the available evidence is not enough to make a recommendation for the routinary use of postoperative antibiotic course after FESS. About intranasal corticosteroids, there is evidence that topical steroids prevent polyp recurrence and this proven effect on polyp recurrence raised ethical concerns regarding depriving patients of their postoperative topical steroid spray, but literature still lacks of specific consensus on the timing, the molecule(s) and the posology to administrate [3].

Second, different cultural or lifestyle factors may be present in the Chinese community, leading to limited generalizability of the findings due to the relatively homogeneous population in China [4,5]. Speaking of homogeneity of the population, there is no information on the ethnic or socioeconomic diversity of the sample, and the subjective severity of the disease should also be taken into account both as a dependent variable and as an outcome [6].

Thus, it is important to consider the limitations when interpreting the results and to be cautious when generalizing the findings to other populations or health outcomes. At the same time, it would be interesting to further investigate and define the role of postoperative medical therapy and its impact on the frequency and magnitude of CRS recurrences.

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