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Dear Editor,

At first reading, this article on wall endometriosis (1) seems informative, well written and well performed with extensive and solid statistical analysis. However, after reading in detail with the eyes of a surgeon, it seems useful to discuss the clinical importance and the relationship between surgery and statistical analysis. These comments do not apply only to this article but can be made for many articles including randomised controlled trials as discussed recently (2). Our comments should be considered as appreciation for nice analytic work, not as a criticism.

The first problem is the difference between analysis of data and their clinical usefulness. According to materials and methods this is a retrospective analysis of symptoms and exams in women who were operated for wall endometriosis. However nice the data, without including women that were not operated, the data do not permit to estimate false negatives or to calculate sensitivity and specificity of a symptom or of an exam. The analysis is thus not very helpful for the clinician who has to decide to do or not to do surgery. Clinical reality is that when confronted with a large endometriotic/painful nodule in the abdominal wall surgical excision is the treatment of choice, obviously after imaging and other exams to rule out other pathology. The clinical decision to perform surgery should exclude pathology for which surgery is contra-indicated. More frequently, however, the clinician is confronted with women with local pain in the abdominal wall without a palpable nodule. In the absence of a positive needle aspiration the clinical question is whether to perform surgery and if surgery is decided how to find/identify the suspected abdominal wall endometriosis. We think that this limitation in clinical usefulness should be clear in the title and in the abstract. Otherwise the rapid reader risks to make the wrong conclusions.

The second problem is the fundamental difference between statistical significance and predictive value. Statistical significances between 2 groups analyses whether the mean of the groups is different and significance thus increases with the accuracy of the estimation of the mean and thus with the number of observations. Significances indeed are estimated using the standard error of the mean which is the standard deviation divided by the square root of the number of observations or $SEM=SD/\sqrt{N}$. Clinical diagnosis and prediction in the individual patient on the contrary deal with the entire population including the variability as expressed by the standard deviation, not with the mean of the population. As an example, although men as a group are significantly taller than women, height is a poor predictor of sex. An obvious finding as the observation that the clinical estimation of the size of the nodule correlates with the finding during surgery is therefore hardly clinically relevant. This also applies to adjusted odds ratios in multivariate models.

These comments should not be considered a criticism, but a suggestion to delineate more clearly clinical predictive value when analysing clinical symptoms.

With these comments we have clinical questions which might be hidden in the analysis

- Do you have an estimation of the lower detection limit of the size of an abdominal wall endometriosis nodule to be felt or to be diagnosed by ultrasound or MRI.
- Does this retrospective review permit suggestions how to find a presumed small nodule during surgery
- Does this analysis permit to make suggestions, when not to perform surgery in women suspected of having abdominal wall endometriosis.

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