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Letter to the Editor

Response to "individualized care in patients undergoing laparoscopic cholecystectomy"

To the Editor:

We read with interest the comments of Ambe et al.[1] on our study.[2] However, we noted several imprecisions that impair the quality of our work and could be confusing for the readers of the American Journal of Surgery. First, the parameters cited by Ambe et al. are the unadjusted covariates derived from the univariate analysis and thus are not the variables selected in our model since we used adjusted covariates derived from a multivariate analysis (gender, previous cholecystitis attack, neutrophil count, fibrinogen, and alkaline phosphatase), whose aim was precisely to test the independence of the factors relative to each other. Secondly, we included biliary colic first because the unbiased identification of predictive factors of operative difficulty requires the use of a control group with uncomplicated procedures, i.e., those usually experienced with biliary colic, and because the model is not a model of operative difficulty for cholecystitis alone but for all laparoscopic cholecystectomies. All surgeons one day experience unexpected difficulties when operating on patients for biliary colic. The goal of the model was precisely to predict such unanticipated difficulties. Furthermore, it should be noted that difficult procedures were not defined according to the operative indication but using the deviation of the surgeon's operative time relative to an individual base time determined from procedures during which no difficulties had been experienced (elective cholecystectomy without any adhesions, bile spillage, or injury to the duct or the artery). Finally, it seems logical to find a significant difference in dissection difficulty in patients with symptoms lasting less than 4 days since we refer to patients with cholecystitis evolving for less or more than 4 days, compared to patients operated on for biliary colic, precisely for the reasons discussed above (Odds Ratio [OR] for biliary colic = 1.00 [reference], OR for cholecystitis <4 days = 6.75, OR for cholecystitis >4 days = 15.28). The timing of symptom onset is therefore a serious issue, we agree. However, we still need to establish precisely the actual beginning of the cholecystitis, and some patients are not able to do so! To circumvent this issue, we used fibrinogen as an effective surrogate since we demonstrated its linear increase with time for patients with cholecystitis.

References

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2. Bourgouin S, Mancini J, Monchal T, Calvary R, Bordes J, Balandraud P. How to predict difficult laparoscopic cholecystectomy? Proposal for a simple preoperative scoring system. *Am J Surg*. 2016;212:873–881.

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