■ Commentary

Comments on Statistical Issues in July 2015

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In this section, we raise some questions about the Methods and Results which described in the article titled, "Generalized joint laxity is associated with primary occurrence and treatment outcome of lumbar disc herniation," published in May 2015 by Han et al.¹⁾

SUMMARY

As they described in the background, this study aimed to (1) evaluate the relationship between generalized joint laxity (GJL) and lumbar disc herniation (LDH), and (2) compare clinical outcomes after conservative treatment in LDH patients with and without GJL. We understood that they used both the study group (patients with LDH) and the control group (without LDH) to explain (1), and presented the results in Table 2 and Table 3 by Han et al.¹⁾ To prove (2), they only used the study group and results were in Table 4 by Han et al.¹⁾

QUESTION 1

1. The First Two Sentences in Statistical Analysis Are Correct?

These expressions seemed to describe the analytical methods for Table 2 by Han et al.¹⁾ If so, the expression 'To compare the differences between the LDH patients with and without GJL' appeared in the first sentence should be 'To compare the differences between the patients with and without LDH.'

QUESTION 2

1. Is the Spearman Correlation Analysis Needed to Show the Relationships between Primary LDH and Other Variables? (Third Sentence in Statistical Analysis)

In this study, they measured the LDH as a binary scale (study or control group), and it is more appropriate to use the Wilcoxon rank sum (Mann-Whitney) test to show the differences of other variables between two groups, like Table 1 by Park.²⁾ Furthermore, we could not understand the result that body mass index (BMI), one of the matched variables, was significantly correlated with the primary LDH occurrence, because this is contrary to the result shown in Table 1 by Park.²⁾

QUESTION 3

1. Why Were Age and BMI Used in Multivariate Logistic Analysis?

Although age and BMI could be considered as confounding factors which may affect the outcome variable, if the control group was matched for age and BMI with the study group described in Methods section, they do not play roles as confounding factors anymore. So there was no need to include the matched variables in multivariate analysis.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

REFERENCES

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2. Park YG. Statistics series III: t test and Wilcoxon test. Korean J Fam Med 2000;21:849-57.