Comment on: High stop-bang questionnaire scores predict intraoperative and early postoperative adverse events

Singapore Med J 2016; 57(2): 101 doi: 10.11622/smedj.2016036

Dear Sir,

With great interest, we read the article by Seet et al,[1] which delved into the ongoing controversy of how the risk of perioperative respiratory events is related to specific STOP-BANG scores. This controversy is fuelled by the belief that higher STOP-BANG scores translate to higher risks of OSA and hence, an increased incidence of postoperative complications.[2-4] Seet et al's study also supports this belief; using logistic regression analysis, the authors analysed the cohort for the odds of adverse postoperative events occurring and found a statistically significant increase in the odds of an adverse event in patients with STOP-BANG scores of 2, 3, 4, 5 and ≥ 6. Moreover, they concluded that a STOP-BANG score ≥ 5 resulted in a five-fold increased odds ratio (OR) of adverse events and recommended that polysomnography be considered for these patients before elective surgery.

However, upon reviewing the confidence intervals for the reported ORs, we noticed a significant overlap for most STOP-BANG score groups. Therefore, we re-analysed the study data with analysis of variance as well as performed a pairwise comparison between the groups using the Bonferroni correction. Our analysis showed that only two groups (that are separated by a STOP-BANG score of 3) have different risks for postoperative complications; adding points to the STOP-BANG score did not statistically alter the risk (Table I). Therefore, we suggest that a STOP-BANG score ≥ 3 should trigger an evaluation for sleep-disordered breathing.

Table I. Association of adverse events with STOP-BANG score (adapted from Seet et al).[1]

STOP-BANG score group	No. of patients	No. of adverse events	Adverse event risk	95% lower limit	95% upper limit	Pairwise group difference*
0 (A)	1,069	29	2.71	1.74	3.69	B, C, D, E
1–2 (B)	3,878	242	6.24	5.48	7.00	A, C, D, E
3–4 (C)	409	104	25.43	21.20	29.65	A, B
5–6 (D)	67	23	34.33	22.87	45.79	A, B
7–8 (E)	9	4	44.44	10.00	78.89	A, B
Total	5,432	402	7.40	6.72	8.13	

Note: No difference in adverse event risk could be detected among groups C, D and E (i.e. STOP-BANG scores 3–8). *Results are based on two-sided tests at a significance level of 0.05. Tests are adjusted for all pairwise comparisons using the Bonferroni correction.

Yours sincerely,

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