

## ASSESSING THE QUALITY OF RANDOMIZED CONTROLLED TRIALS ABOUT PROSTATECTOMY FOR BENIGN PROSTATIC HYPERPLASIA

### Hypothesis / aims of study

Low quality clinical trials have a possibility to have errors in the process of deriving the results and therefore distort the study. Quality assessment of clinical trial is necessary in order to prevent any clinical application erroneous results.

### Study design, materials and methods

This study was conducted by extracting the randomized controlled trials (RCTs) about prostatectomy for benign prostatic hyperplasia from 2003 to 2011 and conducting a qualitative analysis using three types of analysis tools: Jadad scale, van Tulder scale and Cochrane Collaboration risk of bias Tool. Moreover, we evaluated the correlation between the quality of article and impact factor of published journal.

### Results

From 2003 to 2011, 36 RCTs were published. The quality of RCTs showed no statistical difference according to publication year. In quality assessment using Jadad scale, there are statistically significant correlation between quality of RCTs and impact factor of published journals ( $p=0.031$ ) (Figure 1). Moreover, Jadad scale assessment showed that articles which were reviewed and approved by an institutional review board (IRB) were higher quality ( $p=0.034$ ). The blinding trials were six and blinding trials showed higher quality than non-blinding trials. (Table 1).

### Interpretation of results

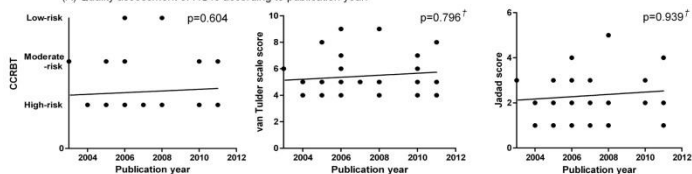
There was no significant improvement of quality of RCTs according to publication year.

### Concluding message

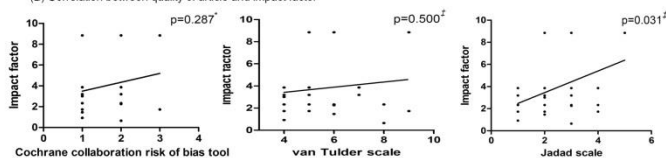
Researchers should focus more efforts in performing high quality studies to ensure appropriate randomization, reviews by IRB, and inclusion of allocation concealment during study performance.

Figure 1. Quality assessment according to publication year and impact factor

(A) Quality assessment of RCTs according to publication year.



(B) Correlation between quality of article and impact factor



Chi-square test, †One way ANOVA, ‡Pearson's correlation

Table 1.Characteristics of RCTs according to subjects.

Subjects	RCT	Jadad scale			van Tulder scale			Cochrane's assessment of risk bias			
		Score	High quality	p-value	Score	High quality	p-value	High risk	Moderate risk	Low risk	p-value
IRB											
Yes	20	2.65±0.99	12	0.034	5.70±1.30	17	0.218	13	6	1	0.202 <sup>†</sup>
No	16	1.94±0.93	4		5.13±1.41	11		14	1	1	
Funding											
Yes	5	2.60±0.55	5	0.344	5.80±0.84	3	0.388	3	2	0	0.415 <sup>†</sup>
No	31	2.29±1.07	23		5.39±1.43	13		24	5	2	
Blind											
Yes	6	3.33±1.37	5	0.006	7.33±1.97	5	<0.001	1	3	2	<0.001 <sup>†</sup>
No	30	2.13±0.82	11		5.07±0.83	23		26	4	0	

Student-t test, <sup>†</sup>:Chi-square test

Disclosures

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